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THE ROYAL COMMISSION

ON

ELECTRIC POWER PLANNING

*Preliminary Meetings of the Royal
Commission on Electric Power Planning*

DATE: Oct. 29, 1975

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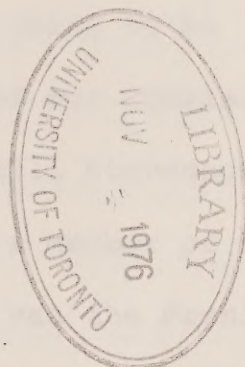
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ROYAL COMMISSION

ON

ELECTRIC POWER PLANNING

Hearing held at the Carleton Room
Holiday Inn, London, Ontario, on
the 29th day of October, 1975 at
2:00 p.m.



MEMBERS OF THE COMMISSION:

DR. ARTHUR PORTER	CHAIRMAN
ROBERT E.E. COSTELLO, ESQ.	MEMBER
MME. SOLANGE PLOURDE-GAGNON	MEMBER
GEORGE McCAGUE, ESQ.	MEMBER
DR. WILLIAM W. STEVENSON	MEMBER

VOLUME 1



DPeg

1 ---On Commencing at 2:00 p.m.

2 THE CHAIRMAN: Sorry for the delay in
3 opening the meeting this afternoon. It is a case of
4 getting the projector set up and so on.

5 My name is Arthur Porter. It is my
6 very pleasant task to introduce my fellow
7 Commissioners beginning with Solange Plourde-Gagnon,
8 whom I introduced to you last night. Those of you
9 who were there last night probably heard me say
10 Solange is a housewife, mother of three, a Journalist,
11 and she is the Commissioner who is going to be
12 looking into the consumer aspects of our Commission.

13 Next to her is Dr. Bill Stevenson
14 who again, as most of you know, is a member of the
15 Ontario Energy Board. In fact, he was the Presiding
16 Member at the meetings this year. As an economist,
17 Bill's role in this Commission's activities will be
18 very obvious to all of you, I am sure.

19 Next to me is Bob Costello who is the
20 Commissioner charged with the industrial - he has
21 got the expertise in the industrial sector of our
22 society, our Ontario society. In particular, and
23 he volunteered for this job, believe it or not, he
24 is the Commissioner who will be responsible for the
25 priority projects which is that part of our Terms
of Reference which deals with certain projects which



1 we must report on in connection with need on a
2 priority basis.

3 George McCague, on my right, is the
4 Commissioner who comes from the agricultural
5 community in a real sense; a farmer, a man who has
6 been involved in many Commissions of this kind, note,
7 the Milk Board, and I think the Bean Board; and he
8 will obviously be concerned with the agricultural
9 aspects of our work.

10 At this time perhaps I should
11 introduce to you three members of our staff, senior
12 members of our staff: Ron Smith, the Executive-
13 Director, sitting back there; Bob Rosehart, who is
14 our scientific counsellor and I think Marc Couse is
15 also here. He has been responsible for all the
16 logistics of setting up this meeting; and he is at
17 the very back.

18 I am not going to speak much this
19 afternoon. Our main job this afternoon is to hear
20 from you, your written and verbal submissions.
21 However, perhaps I should say a few words introducing
22 the work of the Commission to you.

23 The purpose, first of all, of these
24 preliminary public meetings of which this is the
25 first (of course we had a session yesterday evening
and we will have another session this evening) but



1 this is the first of our meetings with the public.
2 The purpose of these meetings were set out in the
3 Act actually which probably most of you saw and if
4 I might read them, the purposes of these meetings:

5 First, to learn about the Terms of
6 Reference, objectives and implications of the
7 Commission. I tried to do a little of this yesterday
8 evening.

9 Secondly, to discuss with the
10 Commission a list of the issues either general or
11 local which the Commission ought to consider; and,
12 thirdly, to discuss with the Commission the manner
13 in which this inquiry ought to be carried out, the
14 procedures, timing, and location of the public
15 hearings, the dissemination of the information to
16 the public and the use of this inquiry as a means
17 of increasing the public's awareness of the
18 relationship between electric power and the quality
19 of life in Ontario, with special emphasis on the
20 period 1983 to 1993 and beyond.

21 If I might just refresh your memory
22 re the Terms of Reference, I think it perhaps would
23 be appropriate if I read them.

24 The Commission should -

25 "(1) Examine the long-range
electric power planning concepts of



1 "Ontario Hydro for the period 1983-93
2 and beyond and to report its findings
3 and recommendations to the Government,
4 so that an approved framework can be
5 decided upon for Ontario Hydro in
6 planning and implementing the electrical
7 power system in the best interests of
8 the people in Ontario;

9 (2) Inquire comprehensively into
10 Ontario Hydro's long-range planning
11 program in its relation to provincial
12 planning; to domestic, commercial and
13 industrial utilization of electrical
14 energy; to environmental, energy and
15 socio-economic factors, including but
16 not limited to matters such as
17 electric load growth, systems
18 reliability, management of heat
19 discharged from generating stations,
20 interconnecting and power pooling
21 with neighbouring utilities, export
22 policy, economic investment policy,
23 land use, general principles on the
24 siting of generating stations and
25 transmission corridors, efficient
utilization of electrical energy and



1 "wise management (conservation) of
2 primary energy resources, power
3 generation technology, security of
4 fuel supplies and operational
5 considerations;

6 (3) Deal primarily with the broader
7 issues relating to electric power
8 planning, and thus serve to alleviate
9 the need for re-examination of these
10 issues at subsequent hearings of other
11 hearing bodies on specific details
12 such as siting, rates, etc;

13 (4) Consider and report on a priority
14 basis on the need for a North Channel
15 Generating Station, a second 500 K.V.
16 line from Bruce, a 500 K.V. supply to
17 Kitchener, a 500 K.V. line from
18 Nanticoke to London, and a 500 K.V.
19 line in the Ottawa-Cornwall area, and
20 other projects as may be directed by
21 the Lieutenant Governor in Council."

22 A copy of these Terms of Reference,
23 ladies and gentlemen, of course are included in the
24 information kits which you have.

25 When the Commission was established,
the Honourable Allan Grossman at that time stated that



1 he hoped the Commission would consider holding
2 preliminary hearings, as he called them at that time;
3 we prefer "preliminary meetings" at this stage; and
4 that the major objective would be educational. I'm
5 quite sure what he implied by that was that the
6 Commissioners be educated by the general public.
7 There may be a little bit of vice versa but the main
8 task I would suggest to the general public is to
9 ensure that we are aware of your views and ideas
10 relating to this very broad range of objectives that
11 we are being asked to consider.

12 The format of this meeting will be
13 very simple and as I said there is a copy in the
14 information kit.

15 The next item on the agenda is that
16 we will hear from individuals and groups who have
17 provided a written submission. Unfortunately because
18 of the mail strike we did not receive these until
19 yesterday evening and so it has not been possible for
20 the Commission as a whole to really become completely
21 familiar with them. For my own part I must say
22 they look extremely interesting and I think they would
23 be very valuable contributions to our work.

24 This evening, the Commission plans to
25 hold what we will call a community meeting which will
be another informal session, not quite the same as



1 yesterday evening but on those lines. There will in
2 addition though, because of timing and because of
3 people's availability, be three or four submissions
4 presented this evening.

5 Perhaps I should say a word about the
6 information kit in concluding my remarks. It contains
7 certain background information which most of you will
8 have seen before, some of it, anyway. Those of you
9 who wrote in for further information from the
10 Commission will certainly have the first part of the
11 information kit.

12 But in addition you will find three
13 working papers. First there is a brief statement of
14 some of what the Commission believes to be the major
15 factors and each issue which we have identified and
16 to which our attention has been drawn by public
17 interest groups of various kinds, so that is one of
18 the documents. The second is a brief outline of the
19 approach the Commission is taking in order to comply
20 with the requirements that we report on a priority
21 basis on these special facilities which I read to you
22 in paragraph 4 in our Terms of Reference.

23 Third, a brief paper which was the
24 work of a small Task Force under George McCague's
25 chairmanship, actually. This outlines the concept
of financial support to individuals and organizations



1 who desire to participate and to undertake studies
2 in particular to present to the Commission, perhaps
3 when we get into the main inquiry phase which will
4 probably be perhaps next June. Of course in between
5 there may well be hearings into the priority projects.

6 On behalf of my colleagues and myself
7 I want to say how grateful we are for your interest.
8 We were very pleased with last night's session. We
9 feel if we can conduct our meetings in a reasonably
10 stimulating sort of educational type of environment
11 we have gone a long way to achieving our objectives.
12 We hope to be as flexible as possible. We hope to
13 get all the feed-back you want to provide us with.
14 That is why we are here of course and, hopefully, we
15 will achieve real public participation; and I am very
16 sure, ladies and gentlemen, that you will wish us
17 good luck.

18 So on that note I think we will move
19 directly to the submissions which have been sent in
20 in writing and I think, Mr. Furanna, there is a delay
21 because of setting up the projection equipment so I
22 wonder if Professor Hooker is present?

23 Professor Hooker, would you like to
24 present your submission? May I say we have allocated
25 a quarter of an hour for each presentation but that



1 includes hopefully time for the Commissioners to
2 question, in case of clarification of anything you
3 raise, and maybe for anybody in the audience. My
4 good friend and fellow Commissioner, Bob Costello, is
5 going to be the time-keeper. Obviously with eleven
6 briefs and timing - we want to finish at 5:15, then
7 I am sure, ladies and gentlemen, - and I'm sure
8 Professor Hooker is accustomed to finishing on time -
9 Professor Hooker.

10 PROF. HOOKER: This audience wont walk
11 out on me.

12 Dr. Van Hulst, my colleague, and myself
13 will make a joint presentation. I want to apologize
14 to the Commission in advance for a misunderstanding
15 which led to the fact that you received from us only a
16 brief abstract of what we wanted to present and at
17 some time in the future there will be a more lengthy
18 and detailed brief documented point by point.

19 In any case, it seems appropriate at
20 this initial meeting only to attempt to make one or
21 two general points which we considered to be the most
22 important considerations for the Commission's work;
23 and that is our intention this afternoon.

24 Much of the discussion in the public
25 domain and a great deal of that in the private domain
which one and another of us have had access to seems



1 to me to have tacitly treated the subject of energy
2 supply as if it were essentially a problem of physics;
3 or if not physics, at least a problem for the natural
4 sciences and we wish to emphasize, in contra-
5 distinction to that, our main aim in coming here, if
6 you like, was to impress upon the Commission the fact
7 that in our opinion all of the major parameters
8 characterizing the mix of the actual social/energy
9 system which we have, the actual supply of energy to
10 society, are extremely strongly dependent on the
11 designs which we institute in our society.

12 By this mean I mean not only the
13 physical design of the energy production and delivery
14 system but the much wider design of industrial
15 processes in the society; the agricultural processes
16 and priorities in the society; the structure of urban
17 centres and so on.

18 It is our view that a proper
19 consideration of those designed dependencies leads to
20 a quite different perspective on the energy problems
21 than is perhaps traditional in the field and we
22 operate with precedence here, for example, from the
23 Blackburn Commission on the Study of Transportation
24 in Great Britain to introduce quite a substantial
25 revolution in bureaucratic thinking there of pointing



1 out that the future of transportation in that country
2 was strongly a function of urban design considerations
3 and not simply a question of transportation technology
4 theory in the form in which it existed at the time.

5 MR. VAN HULST: Mr. Chairman, I
6 would mention some illustrations of the thesis that
7 both energy needs and the choice of energy sources
8 are strongly dependent on design considerations. I
9 would like to start with one point which I might refer
10 to as the phenomenon of decreasing returns.

11 Between 1970 and 1985 the U.S. is
12 estimated to increase its total energy consumption by
13 70% in order to get a net increase in useful consumable
14 energy of only 40%. The total rejected energy,
15 representing various conversion and transportation
16 losses, will have increased by that time a full 100%.
17 This, moreover, is a conservative estimate since it
18 does not take into account external energy subsidies
19 required to make this energy available.

20 The reason for this spectacular decline
21 in efficiency are not hard to find: there is a
22 tendency to increasingly rely on electrical energy
23 generated in large nuclear power plants situated far
24 from load centres; this obviously leads to large
25 conversion and transportation losses.



1 In the second place, the share of
2 energy consumed by the transportation sector increases
3 disproportionately and it is well known that this
4 sector contains the most inefficient energy users.

5 Thirdly, and this does not really come
6 out in the figures I mention, there is a gradual
7 shift towards energy systems that require increasingly
8 large external energy subsidies. The conversion of
9 shale oil to electricity is one example. To deliver
10 1,000 Btu's of electrical energy obtained from shale
11 oil it is estimated that 1,172 Btu's of external
12 energy subsidy are required.

13 A second example, more relevant to
14 the situation in Ontario is nuclear power generating
15 stations have almost invariably proved to be energy
16 sinks. They have typically required a greater
17 external energy subsidy to build, operate and maintain
18 than they have produced so far. This of course is
19 partially due to the fact that we are dealing with an
20 expanding reactor program. But the Ontario reactor
21 program is still scheduled to expand when the useful
22 life of the presently installed reactors is over. For
23 a large enough actual annual rate of increase in
24 nuclear generating capacity it is quite conceivable
25 that we may have to keep subsidizing our source of
"cheap" energy to an extent that would altogether



1 defeat its purpose.

2 The British Open University has done
3 a study on the British nuclear program and come to
4 the conclusion that only an annual rate of increase
5 in nuclear generating capacity of 4% or less offers
6 any hope to yield an energy system with a positive
7 balance.

8 In Canada, even in 1979, the expected
9 heavy water production will not be sufficient for the
10 yearly increase in nuclear capacity projected for that
11 year (in fact, it is only about 200 times the amount
12 lost in some "minor" leaks in Pickering recently).
13 This of course means that more, expensive (and
14 dangerous) energy gobbling heavy water plants need to
15 be built in the coming years if we don't want to be
16 dependent on highly unreliable import.

17 The second point, the alternatives
18 that are available, on-site solar, bio-chemical and
19 wind power represent more efficient local energy
20 sources with significantly lower environmental impact.
21 Yet, the present gap between dollars and energy is
22 such that a design change from a centralized, heavily
23 subsidized energy system towards local, clean and more
24 efficient energy sources is only just emerging as a
25 bare possibility.



1 In the third place I would like to
2 refer to agricultural design which has tended to
3 increasingly energy-expensive practices in the
4 interest largely of an economical goal: economies of
5 scale. Here, too, energy investments lead to
6 rapidly diminishing returns. Application of energy
7 in our forms is now near 1,000 KCAL per year for corn.
8 With this application of energy we have achieved
9 yields of about 2,000 KCAL/M² per year, bringing us
10 to almost half of the photosynthetic limit of
11 production. Further application of energy will raise
12 the yield very little. On the contrary, it has been
13 demonstrated recently by a group of workers at the
14 University of Washington at St. Louis that decreasing
15 the energy input by using only organic farming
16 methods can already be economical (in the monetary
17 sense) because the slight decrease in salable yield
18 is compensated for by reduced energy costs. But
19 here again other than narrowly economic considerations
20 could prevail: agricultural diversification, biological
21 controls and biochemical energy sources offer designs
22 for agricultural production which promise high
23 quality and diversified food at substantial efficiency
24 but greatly reduced energy demand.

25 The last example of how energy demands
and perceived needs depend on design choices I would



1 like to refer to the possibilities of energy savings.
2 Various recent reports, for example, Knellman's
3 report have emphasized that immediate conservation
4 measures such as insulating buildings properly,
5 re-cycling aluminum, glass and paper; eliminating
6 obvious inefficiencies in production processes, et
7 cetera, can lead to substantially energy savings of
8 the order of 20% or more.

9 But even more significant savings can
10 be had in the longer run by spending some thought on
11 the design aspects of energy use: windows in buildings
12 can be designed so as to reduce both heating and
13 cooling costs; the use of low grade heat such as
14 waste heat and solar heat; much more efficient for
15 room heating than high grade heat; transportation
16 costs can be considerably reduced by shifting to less
17 energy demanding ways of transportation and by
18 decentralizing the production of bulky and heavy
19 materials.

20 The possibilities of increasing the
21 efficiency of use and generation of power at such
22 design changes (and more fundamental ones) offers
23 are such that it seems appropriate to study demand
24 predictions of power delivery organizations, such as
25 Ontario Hydro, with more than the usual skepticism.



DP/jc

2.1

1 PROFESSOR HOOKER: My colleague has
2 tried to make the point very briefly which we will
3 document for you at much greater length that there
4 are quite straightforward design considerations
5 which have a major impact of the order of
6 significant fractions like one-half of the future
7 predicted increase in demand in considering future
8 energy policy.

9 Now, in conclusion, I want to
10 impress on the Commission that these design
11 considerations do not stop there. The fact that we
12 choose to design our urban centres in the form in
13 which we now do, for example in the forms of
14 housing which we now have and in the forms of
15 motor vehicle transportation which we now have,
16 in the forms of transportation subsidies and
17 transportation freight rates which we now have,
18 all lead to industrial processes which are highly
19 energy consumptive. The fact that we use our
20 energy rate scales in the form that we do, leads
21 to the same kind of design consideration. One
22 cannot, after all, blame a good designer if he
23 designs in the way which is economical, given the
24 existing structure, and that beyond this again
25 it seems to us even more important that the



.2 1 structure of the institutions which make energy
2 decisions in this country are fragmented in such a
3 fashion that neither the public nor indeed, I
4 suspect, the legislature, is in a good position
5 to see the connections between industrial design
6 and energy policy, for example, or to see the
7 connections between the development of a different
8 energy grid pattern, by that I mean a mix of
9 energy sources, and forms, for example, of
10 agricultural policy.

11 Therefore, in general, we want to
12 urge upon the Commission that their finest service,
13 in our opinion, to the people of Ontario would be
14 to publish a report which began explicitly by
15 identifying the alternative forms of social designs
16 which are open to us from industrial processes,
17 agricultural policy, and urban patterns of living,
18 and to identify only over against the explicit
19 choice of those designs what the future energy
20 policy would be. To my knowledge, this would
21 be the first time this has been done for the
22 people of Ontario or the people of Canada and it
23 would make explicit the real choices which are
24 otherwise buried beneath the talk about energy
25 policy.



2.3

Specifically, within that, we urge two things upon the Commission, one of which is, as well as studying the physical design of the energy grid, they study the design of energy policy institutions; not simply the institutional framework, but the structure of the institution itself about which we have recommendations not to be presented now; and that, secondly, it is our opinion that the future energy policy should place a priority on the adoption of conservation policies, much more importantly, policies for the development of energy conservative industrial and agricultural processes, the possibilities of which are now clearly emerging from research, and furthermore, policies that will aid the rapid development of local low impact, high efficiency energy sources by which I include heat pumps from 20 feet down. There is hardly a single building in the whole of Canada that takes advantage of the fact that there is a constant source of heat 20 feet down all year round; solar, wind and and biochemical energy.

Thank you very much, gentlemen.

THE CHAIRMAN: Thank you, Professor Hooker and Professor Van Hulst.

(Could you hear during the



2.4

1 presentation? We are obviously having problems
2 with the P.A. system.)

3 Bob Rosehart, do you have any points
4 for clarification of the Hooker and Van Hulst
5 submission? This is the main point at this stage,
6 if we understand this submission, and perhaps, Bob,
7 as our scientific counsellor, you may want to --

8 MR. ROSEHART: Could you comment
9 more on this Open University study that you
10 indicated that unless the rate of increase was
11 below 4 per cent per year you are putting more
12 energy in, in building stations, et cetera, than you
13 are getting out?

14 PROFESSOR VAN HULST: The situation
15 is not completely comparable with the Canadian
16 situation if only because of the different design
17 in the reactor systems, mainly the Canadian reactor,
18 CANDU which doesn't require uranium, and some of
19 the British types do. The Canadian reactor requires
20 heavy water which is --

21 FROM THE FLOOR: We can't hear!

22 PROFESSOR VAN HULST: Since the
23 Canadian system is not quite comparable with the
24 British system as far as the mix of different types
25 of reactor is concerned, this Study is not quite



2.5

1 comparable. The only point I wanted to make was
2 that such a Study would surely be -- should really
3 be done for the Canadian situation as well because
4 I think, after all, this is quite a frightening
5 conclusion.

6 MR. ROSEHART: I was under the
7 impression from that Study that it indicated if
8 the doubling period was every four years that the
9 energy balance -- it took more energy to create a
10 system than you got out of the system. Could you
11 comment on the 4 per cent?

12 PROFESSOR VAN HULST: Four per
13 cent would, of course, not -- I can't figure out
14 what doubling period that would be -- about 40 years.

15 THE CHAIRMAN: If I might just try
16 to explain to you just what this dialogue is all
17 in aid of, it is an interesting question that has
18 been brought up. It is the question of how much
19 energy you have got to put into a system say, like,
20 a thermal generating station to build and how long
21 afterwards it takes you to balance this off. In
22 other words, obviously it takes so much energy to
23 build a system. The system, after it is built,
24 produces energy, and the question is, how can you
25 balance one against the other? At what stage of



2.6

1 building, if you tried to build stations too
2 quickly, the balance appears or could be against you.
3 You don't win obviously if you build them at a very
4 high rate, you are putting all your energy back in
5 the system to build stations, so everything you
6 are producing is going back and nothing really
7 comes out.

8 This is the question that was raised.
9 Am I right in that?

10 PROFESSOR VAN HULST: Yes.

11 THE CHAIRMAN: As I said before, I'm
12 sorry about the auditory system. It is very
13 unfortunate but there it is and all we can hope for
14 is that people with briefs will speak up as loudly
15 as they can.

16 Thank you very much, again, gentlemen.

17 We will move now to Pat Chefurka.

18 MS. CHEFURKA: Doctor Porter, and
19 Members of the Commission, could I make a suggestion
20 for further sessions of your Commission?

21 THE CHAIRMAN: Yes, I wish you would.

22 MS. CHEFURKA: I hope you will tell
23 everybody the number of children that the men have
24 too.

25 Doctor Porter, you asked in your



2.7

1 initial letter for our prayers. I pray that these
2 hearings, and your report on them, may prompt an
3 aboutface by the government of this province.

4 For too long our government has had
5 its back to the future. It has looked the other way
6 while Ontario Hydro set the pace for us. Our
7 government abdicated its responsibility to assess
8 and control the direction and growth of this
9 publicly owned utility.

10 My indictment stems from many things:

11 Firstly, the acceptance of a 7.2%
12 growth rate. That means that for every generating
13 station we have now there will be another one in ten
14 years; every transmission line will have its twin
15 within the decade. Our population will not double
16 within this time span. Plans, therefore, must either
17 be for export or profligacy. I oppose both.

18 Secondly, taking the nuclear route.
19 I am sure CANDU and others will make the safety and
20 environmental arguments persuasively. But there are
21 also the military and terrorist aspects. Conventional
22 weapons would be enough to involve us in a nuclear
23 war or subject us to nuclear blackmail and I have
24 a reference there for you on that. In this context
25 you may be reminded of our irrepressible member



2.8

1 from High Park in the last Legislature! Not only
2 our provincial government, but the Department of
3 National Defence and even the United Nations should
4 have something to say about the proliferation of
5 nuclear stations in Ontario.

6 Thirdly, Hydro's \$25 billion expansion.
7 That represents over \$3000 for every person in the
8 province, not counting interest. For that money
9 we could give every family in the province their
10 own solar heating and wind electric equipment, even
11 with the present state of the technology! My
12 further concern is that if Ontario Hydro takes that
13 much investment capital out of the market, what will
14 it do to the city of London and other municipalities
15 that need to borrow from time to time?

16 Fourthly, the lack of serious
17 attention to conservation; this, of course, has been
18 mentioned by Professor Hooker. Sure, there were
19 some cute conservation ads in the media, most of
20 them during the election campaign. But that's it.

21 Ontario Hydro's goals seem to go no
22 further than the production of maximum electricity.
23 They profess in their brief to welcome public
24 participation, but "suggest that the Commission
25 should limit the allocation of funds to enable



2.9

1 individual participants to retain consultants or
2 undertake studies". They favour open planning, but
3 intimidate by emphasizing how much extra it will
4 cost us if things don't go according to their plans.
5 They often give the impression that they deem
6 anyone who criticizes to be an opponent: of them,
7 of electricity, or of the twenty-first century.

8 In my brief I have drawn up an
9 energy mobile. I had hoped that there might be an
10 overhead opaque projector here so that I could
11 show the rest of you but that is what I'm referring
12 to in this next segment (indicating).

13 Like any mobile that hangs in your
14 living room or bathroom, it has to balance. The
15 provision of energy is one side, its use is the
16 other. The imbalances that should worry us are,
17 firstly, the lack of weight given to conservation,
18 and secondly, the excessive weight given to the
19 production of electricity from nuclear fuels.

20 Conservation. It is more complicated
21 than it would seem at first sight. There are
22 fairly simple things that can be done, such as
23 continuous metering, where the price can be changed
24 according to the time of day. Anything that would
25 bring a relative reduction of the peak load would



2.10

1 reduce significantly the needed capacity. Or there
2 is upping the insulation standards. Or banning
3 certain appliances and uses.

4 There needs to be an analysis of the
5 energy cost of every good and service. As a rule,
6 when people conserve energy, they save money. But
7 what do they spend their money on? If they forego
8 a dishwasher but then use the money to fly to
9 Vancouver, energy-wise, we're net losers.

10 Energy consumption per person is not
11 a randomly varying quantity; it is directly
12 proportional to family income. It's a straight line
13 relationship. Perhaps one way to deal with this
14 is to develop a system whereby energy is taxed
15 according to income. I recommend this as a topic for
16 the Commission to investigate. For our well-to-do
17 we need to encourage a life-style of elegant
18 frugality. In any case, we should never charge
19 large energy-users less than small.

20 Any conservation program will have to
21 consider carefully the redistribution of labour.
22 Many of the suggested programs lead to an increase
23 in employment, which is fine, except that it is most
24 often employment in low-wage sectors. People must
25 not be impoverished by well-intentioned but thoughtless



2.11

1 actions. So this is another area that needs careful
2 examination.

3 Provision of electricity: how? My
4 plea is for research, development, and use of renewable
5 sources. This planet has an established equilibrium
6 between solar energy received and heat radiated.
7 Any form of solar energy that is converted to
8 electricity still ends up as the same heat and does
9 not disrupt the overall equilibrium. This holds
10 true whether we talk of solarpanels, or burning
11 wood, or harnessing winds or tides. However, the
12 nuclear processes add a completely new heat load
13 to the planet which must inevitably shift the
14 equilibrium. How will it shift? How much can we
15 and the planet tolerate? We don't know. We are in
16 completely unknown territory, and it behooves us to
17 tread warily.

18 Fossil fuels are depleting quickly.
19 Easily-harnessed hydro is already being developed.
20 We have no tides to speak of in Ontario. Solar
21 energy research has been starved for funds - let
22 me commend to you projects in this field at the
23 University of Western Ontario.

24 At the University of Copenhagen,
25 they have found that Denmark will be able to supply



12 1 its entire energy needs from sun and wind by the
2 year 2050. Their supply will be sure, their costs
3 will be comparable, and their equipment less
4 vulnerable to monopolization. They claim that it
5 will favour decentralization which in turn will put
6 more emphasis on quality of life.

7 If the Danes can do it, why not us?
8 I mean, why not?

9 THE CHAIRMAN: Thank you, very much.

10 MR. McCAGUE: Ms. Chefurka, let
11 me express our appreciation for your presentation.
12 We certainly are glad that you are here and
13 involving yourself in our activities. You gave us
14 a summary of some five points with your covering
15 paper. This summary, I take it, you see as five
16 issues, distinct issues on which the Commission
17 should concentrate their thinking.

18 MS. CHEFURKA: Heavens, no. I
19 know that you are going to end up with a welter
20 much greater than this. What I have attempted to
21 cover here are odds and sods of things that seem
22 to me to be socially important and areas that
23 other people that I knew were going to be talking
24 to you might not mention.

25 Obviously, you are going to hear



2.13 1 many of the same pleas over and over again, but I
2 guess the social context is one that I'm very
3 concerned about and the use of renewable energy
4 sources.

5 DR. STEVENSON: I have a general
6 question, Ms. Chefurka. Is this a statement that
7 we can take as some indication of the thinking of
8 the N.D.P. or is it your own view or something
9 in between?

10 MZ. CHEFURKA: It is probably
11 something in between. This is done partly in
12 discussions with people in the Ontario N.D.P., in
13 the caucus and in the Research Department. It is
14 certainly all in line with the thinking of the
15 N.D.P.

16 DR. STEVENSON: Thank you, very
17 much.

18 THE CHAIRMAN: Are we ready now,
19 for Mr. Furanna? Is the equipment ready? Mr.
20 Furanna of the London Public Utilities Commission.

21 MR. FURANNA: Thank you, Mr.
22 Chairman. I am sorry for this delay. I expected
23 that this might be all set up in advance. I am
24 very pleased to have this opportunity to speak on
25 our brief which you already have in your possession.



2.14

1 Because of the time restraints, the brief is
2 necessarily short and I would like to use this time
3 to present some of the data to support our own
4 expansion plans and to comment on Ontario Hydro's
5 plans as they apply directly to the City of London.

6 After hearing the lecture last
7 night, I conclude that you may not be too interested
8 in the problems of the present, but~~the~~ thought we
9 would like to impress upon the Commission is that
10 we want to avoid allowing a plan of the present
11 to become the crises of your Study. It is our
12 responsibility to provide the facilities which will
13 be required to provide the public with the
14 electrical needs of the future so that if I may
15 have your permission, I would proceed on that basis.
16 (Slide presentation)

17 Our present concern is for the core
18 area of the City and this area around here is the
19 central part of the City. The small area in the
20 centre is the downtown core and this area out here
21 is the balance of the 13,800 volt system. This
22 whole area here is supplied at 13,800 volts from
23 two Ontario Hydro Stations.

24 The dotted line around here is
25 essentially the old city boundary and was formerly



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1 supplied at 13,800 volts and indicates the areas
2 which have been transferred to the higher voltage
3 system of 26,600 in order to relieve the two
4 stations mentioned.

5 This release has prolonged the
6 capacity of these two stations by about 10 to 15
7 years, as you will see in the following charts.

8 The engineering investigation have
9 concluded it would be neither practical nor
10 economical to either continue this process further
11 or to enlarge the existing stations. May I draw
12 your attention to this inside core again and a
13 little centre section which I will mention again
14 later.

15 This curve shows the load on the
16 Nelson Transformer Station relative to its capacity
17 and the solid line is the load to date and this is
18 the projection. Based on assuming a 5 per cent
19 rate of increase, the future load would follow
20 this line; based on 8 per cent, it would be this
21 one. You note that both the 5 per cent and the 8
22 per cent are considerably less than the rate of
23 growth up-to-date.

24 This particular point should be
25 noted, 1970, which was the time when the first



16 1 high-rise building began to come to the downtown
2 area. This curve shows the load capacity relationship
3 of the downtown network showing the load transfers
4 that will be required after 1975, after this present
5 year. In other words, the system as it stands at
6 the present time is practically at capacity.

7 This is the load curve for the
8 Highbury Avenue Station and you will note here on
9 the same parameters the station will come to
10 capacity in 1977 and 1978, which is the same time
11 that the Phenofy Street Station would come to
12 capacity through this load growth and, again, the
13 load growth that we have predicted is considerably
14 less than what we have actually experienced over
15 the last 5-year period.

16 This drop in the station load shows
17 the result of transfers from this 13,000 volt
18 system to the 27 system which has actually
19 increased the life capacity of the station by some
20 15 years.

21 The solution to these capacity
22 problems as proposed is the construction of a new
23 TS somewhere in this red area which is located at
24 the northerly end of the central city area. The
25 western section is the most desirable in that



.17 1 Study area because it can be more readily made
2 available to the -- the property is now readily
3 available and it is also more economical to connect
4 the necessary cables into the existing system.

5 Transmission line required to supply
6 this station is proposed to come from an existing
7 220 kV transmission line on the east end of the
8 City at present and follow what is the CPR right-of-
9 way to this location. This route offers a minimum
10 of interference with the existing property and the
11 environment. This station is required to be in
12 service by 1977-1978 if the criteria of the load
13 study are to be met.

14 It is important to note that in
15 the mid-1980's, this station out in the northwest
16 corner of the City will also be required. Therefore,
17 it is recommended that the property for this
18 station in this area be acquired at this time and
19 also that the entire right-of-way be acquired.

20 Knowing these facts, it would be
21 very poor planning not to secure both of these
22 properties and the entire right-of-way so that
23 while the second half of this line is not
24 immediately required, the way would be paved for
25 the future extension when required.



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Some load data projected into the future I hope will be of some interest to you. This is a curve showing the annual electric usage per capita in the City and following the curve extended from present usage it is obvious that there is going to be a large increase in the per capita usage by the time the period of this Study arrives.

THE CHAIRMAN: Mr. Furanna, you just have two minutes and there one or two points I think of clarification that we need. Have you much more material, because it is clearly going to be difficult for us to keep on the schedule.

MR. FURANNA: Mr. Chairman, the charts that you have are in the material that has been given to you and I just want to draw your attention to these because I thought that they were important to the whole presentation. If you wish, we can skip the rest of the charts because they do show the same story and they show it in a little different light. The fact of the matter is that we are going to have to deal with the period between now and your Study period and it has to be done now. I hope that these facts show something of the seriousness and urgency of these matters under discussion. It is understood that your terms



2.19

1 of reference are more long range than our present
2 means, but long delays in the past have developed
3 urgency now. A more efficient and effective approach
4 to the present problems can avoid a crisis in 1982
5 to 1992.

6 I thank you, Mr. Chairman, for
7 this opportunity and certainly, as pointed out in
8 the brief, our Commission stands ready to be of any
9 further assistance to your Commission than it can
10 in the future; but our one message, if nothing else
11 comes across, is that we have important work to do
12 now that we cannot wait a number of years for
13 approval.

14 As pointed out in the brief, we
15 feel that your Commission could do a great service
16 to this country if you were able to streamline
17 the mechanism of public hearings and Government
18 approvals that would permit us to get on with the
19 job when the need is there.

20 Thank you, Mr. Chairman.

21 THE CHAIRMAN: Thank you. I think
22 we might have time for one question. I suspect we
23 are going to ask about why this sort of increase
24 since 1970. Have you any reason? Is this electric
25 heating or what are the reasons for the continued



1 increase?

2 MR. FURANNA: No, in the downtown
3 area primarily, London has grown very rapidly load-
4 wise. Prior to 1965, I don't think there was a
5 building downtown in excess of four or five stories.
6 Now, you only have to look around to see what has
7 happened and this has happened in a very few years.

8 THE CHAIRMAN: In other words,
9 what you are saying is the per capita consumption in
10 a situation where you have got high-rise is higher
11 than the per capita consumption for a single dwelling?
12 Is that right?

13 MR. FURANNA: Yes, it is, and also
14 the charges which you have will show the rate of
15 increase of the per capita consumption that we are
16 anticipating.

17 been
18 Many loads that have/traditionally
19 given to other fuels are transferring to electric
20 and this is having a sharp effect on our load
21 conditions.

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1 DR. STEVENSON: Mr. Furanna, I just
2 want to say how pleased I am personally that you
3 have made this submission. I think it is very
4 important that we hear from the professionals in
5 the electric utility industry as we cross the
6 Province and I am very pleased with the submission on
7 your part. I hope it is one of many we will have
8 from the municipal electric utilities.

9 I don't think we really have time for
10 my question. I am very interested, though, in what
11 we can see to be a bit of a departure, a new
12 experiment in public participation that your utility
13 and Ontario Hydro are commencing a relation to this
14 transformer station you mention.

15 I'm hoping maybe Dr. Porter will have
16 some time at the end of the afternoon session, if
17 you are still here, Mr. Furanna, to perhaps go into
18 this, but I think I'm right am I not that you are
19 trying something a little different here?

20 MR. FURANNA: Not really, I don't think.
21 Certainly I want to make it quite clear that there is
22 no suggestion that we should short-circuit any
23 public participation nor any of the various government
24 regulations that have been laid down in connection
25 with this.



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1 We are simply asking, let us do the
2 job that we have to do and get it done.

3 For example, we have been all summer
4 trying to define the Terms of Reference of a planner
5 that was asked for by the local neighbourhood
6 association. Now, those months of delays are
7 serious. When they are added one on top of the
8 other they result in years of delay in getting this
9 facility into operation and regardless of what
10 happens in the future if new sources of power are
11 coming into effect, and I'm sure that they will some
12 day, but in the near future these facilities that we
13 are asking for are going to be required.

14 DR. STEVENSON: Thank you very much,
15 Mr. Furanna.

16 MR. R. VAN HORNE: Dr. Porter, may I
17 raise a small point.

18 THE CHAIRMAN: All right, a point of
19 clarification because we are obviously --

20 MR. VAN HORNE: It is simply a plea,
21 Dr. Porter.

22 I am a member of the London Public
23 Utilities Commission and as an elected person I feel
24 very closely related to the ultimate consumer as do
25 our administrative staff. We are not in the position



3/3 1 of Ontario Hydro, that is one step removed. For you
2 people who are undertaking such a big task it is
3 important that you listen to all and I think it is
4 very, very important that you give more time than 15
5 minutes in your further hearings in various other
6 communities, more than 15 minutes to the people who
7 are directly related to the consumer.

8 Thank you.

9 THE CHAIRMAN: Thank you very, very
10 much. Let us realize this is merely an identification
11 of issues. There is going to be very considerable
12 time available for debate in depth subsequently so
13 this 15 minutes is not intended so that you can
14 present a total case, not in any way.

15 I was hoping that many of our people
16 presenting briefs would just say I believe the
17 issues are one, so and so; two, so and so; three, so
18 and so and four and so on.

19 As it is, in these discussions and I am
20 grateful for them but they are embedded there so this
21 is just a question of forum in a way. This is no
22 criterion as to how much time will be available to
23 you in the future.

24 So thank you very much, Mr. Furanna.
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THE CHAIRMAN: The next speakers
will be Mr. Craig and Mr. Clifford.

MR. CRAIG: Mr. Chairman, I am the
Director of Physical Plant, London Board of
Education, City of London and with me is Mr. Terry
Clifford who is the Science Consultant on our staff.

I want to point out that the submission
we are making is the submission of the administration
of the Board and does not necessarily reflect the
opinions of the trustees.

The Board of Education owns and
operates 86 buildings in the City of London with a
square footage of about five million square feet.
The total energy cost in 1974 were close on a million
dollars of which over half was for electrical power.
The increased cost in 1975, which we were not budgeted
for is already over \$110,000 and we are expecting
further increases of course in this in 1976.

The Board's problem with this cost is
that our revenue is based on our enrolment and our
enrolment is declining so our revenue is declining
and we are having increased use of schools by the
community in the evening.

The energy costs cannot also be
contained because the community is resisting the



C:4/2

1 closing of all obsolete or half-empty buildings in
2 the amalgamation of various buildings, schools,
3 into other schools. Thus, and like many industries,
4 we are unable to reduce our operating costs as our
5 revenues decline.

6 We have been monitoring our energy
7 consumption for three years in order to improve our
8 operating technique. However, with the oil embargo
9 in 1974 this information has taken on a new
10 significance and we have given you a list of the types
11 of information we have been collecting.

12 We tried the various techniques with
13 that oil embargo in immediate term to do something
14 and sad to say whatever we did was negated. We got
15 nowhere.

16 Since then we have put together a
17 policy, a copy of which we have submitted to our
18 Board and we have given to you. This, briefly, goes
19 into two areas: one, we are looking at the improvements
20 to the envelope of the building. The Ministry of
21 Education did a study in the Cambridge area on two
22 schools and we expect that from that will come a
23 grant system or something to allow us in these
24 municipalities to effectively change our envelopes to
25 make savings.

We are also going into the area of



C:4/3

1 reduced environment in schools and, thirdly, we are
2 going into an automated operating system.

3 We believe that the higher levels of
4 government must mount a sustained campaign for the
5 conservation of energy to obtain the same kind of
6 results that have been evident in the litter and
7 pollution programs mounted in the past. We believe
8 money spent in cajoling people to get up and walk
9 around the block should also persuade them to switch
10 off the light as they leave the room.

11 And in addition to this, the most
12 important area that we feel, as the Board of
13 Education, we must start directing some of our
14 attention to is the younger generation, the people in
15 our classrooms, and to this end I would like Terry
16 now to give you some of the ideas of the curriculum
17 changes, and they are very fundamental, that we are
18 contemplating at the present time.

19 MR. CLIFFORD: I think that the
20 happiest note that I had was that this was to be a
21 future-orientated study because I think that the
22 problems that we have in today's society can be
23 overcome by the youngsters that are now functioning
24 in the society as they become adults.

25 This will only be true of course if
we provide adequately for them in their educational



:4/4

1 program. Traditional curriculums in the western
2 world and of course in other countries have featured
3 energy, the education of energy, in several parts but
4 I think it is fair to say that in science education
5 for youngsters 5 years of age to 18 years of age,
6 although energy is on the curriculum, it gets very
7 much secondary treatment.

8 When asked what energy is, a typical
9 response is to go like this (indicating) for 17 or 18
10 year old students, the end of our stream of education.
11 E equals MC^2 . It is gas; it is water going over a
12 falls; it is tar sands, whatever they are; and it has
13 something to do with oil and I think the Arabs have
14 got it all.

15 Now, clearly something is at fault
16 here and I don't think that it is fair to immediately
17 blame the educational system. I think we have to
18 examine further than that and see what some of the
19 other factors are, and I think these are some of them:

20 I think the training program for
21 teachers has never had in this province a spiralling
22 concept of energy. It has never been worked in on
23 this basis and it has just been touched on lightly so
24 the teachers come into the field poorly equipped.

25 Now, what else can help the teachers -
teaching aids, learning aids for the teacher and for



C:4/5

1 the child. A quick review of what is available on
2 Circular 14 in this province would indicate that
3 there are fewer than 13 documents available for the
4 learners in this province to aid in energy education.
5 I don't think that is sufficient, and in further
6 examination of those the majority were American and
7 the case studies hardly fit. They are hardly
8 appropriate for Canadians. So we have a shortage
9 of learning materials.

10 I think, too, we had a shortage of
11 expertise in the educational field. There are very
12 few of us, although I think adequate as educators,
13 in fact outstanding as educators that have the
14 up-to-date information and documentation in energy
15 in its various forms.

C:5

16 I think this is badly needed by the
17 educated today, first grade information.

18 Then there is another aspect of
19 education that is now coming to the fore in
20 Ontario and other parts of Canada and the United
21 States and that of course deals with the inter-personal
22 relationships which really affect the use of energy,
23 the attitude about energy and ultimately whether we
24 are going to switch these lights off that Doug talks
25 about and I think to get into value clarification,
value orientation type education demands again more



/6 1 material, more expertise at the teaching training
2 level, et cetera to make this available for the
3 youngsters today.

4 So I think on those points I urge this
5 Commission to either develop them or urge their
6 development from within or other agencies in the
7 Ministry to get so involved.

8 THE CHAIRMAN: Thank you very much,
9 Messrs. Craig and Clifford.

10 MR. COSTELLO: A very interesting
11 presentation, Arthur.

12 I do know the Government of Ontario
13 have a group of people in the Department of Energy
14 going around offering their assistance to smaller
15 companies, I guess they offer their assistance to
16 larger companies too but they are usually able to
17 look after their own problems in this area.

18 I had just assumed, because I know
19 they are doing this, that they are doing it at all
20 levels. The Ontario Government themselves are
21 conserving energy in their own buildings and I know
22 the Federal Government certainly have and I think they
23 should because everytime I go to the airport at Malton
24 it is about 90 degrees. We have all gone through that.

25 I think you brought up some good points



1 here on the education of teachers. Our company used
2 to have a Chairman who felt very strongly that the
3 better the teacher the better the student and used to
4 give quite a bit of money away on that basis. In
5 this day of PR work, everybody wants credit for what
6 they are doing. I think your remarks are very much
7 to the point.

8 THE CHAIRMAN: Do you find that, for
9 instance, the material in Ontario Hydro have, they
10 have many, many pamphlets, do you find these of any
11 value in the educational sector?

12 MR. CLIFFORD: I think the most
13 valuable thing that I have found for information came
14 from a group of Grade 10 students who were very quick
15 to point out this year that they are in a quandary
16 when we were doing a value orientation exercise as
17 to what they should be doing with electricity because
18 they remember doing a unit on energy in Grade 7 and
19 working with the Hydro at that point in time and they
20 were urged to use the stuff because that way their
21 mom and dad got cheaper rates. All of a sudden, there
22 has been an about-face which of course is reflected
23 in the advertising and now you don't get the cheaper
24 rates any more; in fact, you should be conserving
25 energy. So they are just not too sure about the



8/
1 bogeyman, the Hydro.

2 MME. PLOURDE-GAGNON: Is the
3 information from Hydro to the school addressed to the
4 teacher and the students or is it addressed to the
5 students?

6 MR. CLIFFORD: I have never had any
7 information addressed to the student in the schools
8 I have worked in.

9 MME. PLOURDE-GAGNON: To the teacher?

10 MR. CLIFFORD: I have had some to the
11 teacher.

12 THE CHAIRMAN: Thank you very much.
13 I believe perhaps at this time we might have our
14 coffee break and hopefully we will get the bugs worked
15 out of the electronics.

16 Could we reconvene, and I do urge you
17 please to come back within 15 minutes. I will hammer
18 with thing when we are going to start.

19

20 ---SHORT RECESS.

21 ---ON RESUMING.

22 THE CHAIRMAN: Ladies and gentlemen,
23 may we come to order, please. I think we have the
24 PA under control. What it involved was moving a
25 couple of tablecloths, apparently, and if each one of
them is switched off when we are not using the mike



1 and only the one using it has his switch on, I think
2 all will be well.

3 Our next submission is from Professor
4 Bolton of the Department of Chemistry of Western
5 University - Professor Bolton.

6 PROF. JAMES R. BOLTON: Thank you
7 very much. I am here representing myself as a
8 researcher particularly in solar energy and also as
9 a member of the Board of the Solar Energy Society
10 of Canada.

11 I am going to examine the longer term
12 aspects of your task, the beyond 1993 or more
13 particularly beyond the year 2,000 because I feel
14 that this is probably the most important aspect of
15 your task in that what we have to do to meet the
16 crisis that is coming in the post-2000 year
17 period is to begin planning for it now.

18 How long will current energy sources
19 last? Well, at present Ontario Hydro relies on
20 three primary energy sources: hydro, fossil-fuels
21 and nuclear power. Let us examine each of these
22 in turn to see what will happen in the future.

23 Hydro power is a renewable source, in
24 fact, it is solar energy. It is re-used solar energy.
25 There is a problem in terms of silting up of artificial
reservoirs which will mean rather a major capital



0/ 1 investment once every 100 years or so. However, I
2 consider hydro energy is a renewable form of energy.
3 Unfortunately it is limited in capacity and at present
4 we probably developed at least half of the available
5 capacity in Ontario if not more so that hydro is not
6 sufficient to meet the needs of the future in terms
7 of energy. Certainly what we have should continue to
8 be used.

9 It is easy to deal with fossil-fuels;
10 I think it is certainly a well-known fact now that we
11 are running out of oil, natural gas and coal. Of
12 these three, probably coal is the most abundant form
13 of energy. Unfortunately, most of the coal reserves
14 in Canada are out in the West and the cost of
15 transporting them to Ontario is rather significant.

16 So I think we could discount fossil
17 fuels as a significant contributor in the post-2000
18 year period.

19 The limitations of these first two
20 sources are well known and have led to the development
21 of nuclear power as a replacement energy source.
22 Reasons for this are quite understandable. Ontario has
23 significant energy reserves of uranium. In fact, it has
24 has been estimated that Canada has around 500,000 tons
25 of uranium available. However, that really isn't very
much because if that had to supply the whole world at



1 the current rate of energy utilization, let alone
2 what will happen in the future, it would last only
3 two years. Of course, if it^{is} used in Canada it
4 certainly will last longer and other sources are
5 available as well, so one might expect 10 or 20
6 years in Canada if all the energy came from uranium;
7 somewhat longer if you consider the other sources.

8 But my point is that uranium reserves
9 are limited and why are we spending twenty-five
10 billion dollars to develop them. The main reason
11 that these are limited is that we only use half of
12 1% of the uranium that is mined, the uranium 235.
13 There is a process that is being developed, the fast
14 breeder reactor, developed in the United States that
15 will burn the rest of the uranium. That produces
16 plutonium as a nuclear fuel. The plutonium is a
17 material which can and has been made into atomic bombs
18 and if we start processing plutonium, starring
19 plutonium as a pure material, it could be stolen like
20 anything else and the possibility of having certain
21 terrorists groups or certain countries in this world
22 acquiring a few kilograms of plutonium is frightening,
23 very frightening, certainly to the possibilities for
24 world peace.

25 There is also the problem of the radio-
active waste, the tons of radioactive waste that are



12/ 1 produced by nuclear power plants. The problem of
2 containment over thousands of years has certainly not
3 been solved to my satisfaction and I certainly don't
4 like the idea of leaving this kind of a legacy to
5 future generations if we can at all avoid it, if
6 there are no alternatives.

7 What are the alternatives for the
8 future? There are really only two that has
9 sufficient capacity to meet the needs of the future.
10 The first of these is nuclear fusion. A great deal
11 of research is being done now in this process whereby
12 nuclei are combined together to release energy. This
13 is the process whereby the sun gets (inaudible). As
14 yet, in spite of the billions of dollars being spent
15 on research on this no working nuclear fusion reactor
16 has ever been built even on the laboratory scale so
17 that we may be able to get energy from this source
18 and we may not. It is an unknown question.

19 The problem of scientific feasibility
20 has not yet been solved.

21 The other possibility, the one I want
22 to spend some time on, is solar power. The sun, as
23 I said before, is a fusion reactor. It is working
24 quite nicely and quite safely, 93 million miles away.
25 It is expected to keep on going for 5 billion years
so there is no problem of its reliability and its



13/ 1 renewability. The staggering fact about solar energy
2 is that in a period of two weeks the earth receives
3 from the sun an amount of energy equal to the total
4 known world reserves of coal, oil, natural gas and
5 uranium, on the total surface of the earth. Two
6 weeks to get that much energy.

7 To put this in perhaps a more local
8 aspect, if you have a roof of area of 1,000 square
9 feet in London, that roof receives an average solar
10 power of 25 kilowatts. Now if you were to cover that
11 roof with solar cells, converting to an electricity of
12 about 15% efficiency, you would be generating average
13 solar power of 4 kilowatts of electrical energy. The
14 current home today uses an average of about 1 kilowatt.
15 Here in London four times as much is available as is
16 being used.

17 There are two problems, number one,
18 the cost. At present it would cost you about \$100,000
19 to equip a roof with solar cells. A great deal of
20 research is being carried out particularly in the
21 United States to bring down the cost and it is
22 expected that that cost can be brought down with
23 mass production techniques, down to perhaps a factor
24 of 1% of the current cost. The other problem is that
25 solar energy is intermittent. The sun does not shine
at night, and obviously a storage system is needed but



4/ 1 I think these problems can be overcome; certainly
2 with research funding I am convinced it can be
3 overcome.

4 Certainly in the United States they
5 are taking it very seriously. They are spending,
6 over the next five years, one billion dollars on
7 solar energy research alone and they expect by the
8 year 2000 some 10% of the electrical power capacity
9 in the United States will come from solar energy.

10 Now, why are we not considering solar
11 energy in Canada is the big question I have.
12 Certainly, we have shown very little interest in it,
13 as determined by the amount of money that is spent
14 on research. I believe that solar energy is really
15 the only viable answer for the future. It is
16 certainly the safest answer. It is environmentally
17 compatible with what we want to do socially and
18 economically and I would like to see a lot more money
19 going towards research in this area, much more than
20 has been done at present.

21 Thank you very much.

22 THE CHAIRMAN: Thank you very much,
23 Prof. Bolton. I have one question, and perhaps might
24 I explain to those of the audience who are perhaps
25 not too familiar with the technology, solar energy
as used today lends itself quite well to the space-



15/

1 heating of houses for industry and we have various
2 examples in Southern Ontario. I think there are
3 at least four homes either built or being built
4 which will utilize solar energy to the extent of
5 perhaps being 60% or 80% even of their needs. It
6 will have to be supplemented. So this is the one
7 aspect where you get a local utilization of solar
8 energy.

9 The other, and this is the question I
10 am going to address to Prof. Bolton, the other aspect
11 is solar electric power stations because obviously
12 if you are going to supply industry from a basin of
13 solar energy, not through the hydrological cycles,
14 say, as Niagara Falls is on, tides or winds and so
15 on but directly from the sun, you have got to
16 consider large generating plants based on solar energy
17 may be in the region of, well, 500 megawatts, shall
18 we say, if you are having a local -- I don't know
19 what Stelco or, Bob, some of your pulp and paper
20 companies use, so my question is to what extent as
21 far as you know, is research going on in the second
22 area. I think we are all aware that it is going on
23 in the first.

24 PROF.BOLTON: Yes, there is certainly
25 a lot of research going on in terms of development of
central solar power stations. There is a proposal



16 1 to put a power station in Arizona that would involve
2 mirrors concentrating the solar energy onto a boiler
3 suspended some thousand feet or so above this field
4 of mirrors. The boiler would produce steam about 600
5 or 700 degrees centigrade and then used to generate
6 steam in a conventional power plant. This is going
7 to be sited next to a hydro plant and the excess solar
8 power during the day will be used to pump water into
9 the reservoir and then at night that water would
10 come back to the turbines to generate electricity at
11 night, so this would be a natural way to solve the
12 storage problem.

13 THE CHAIRMAN: What is the capacity
14 of that system?

15 PROF. BOLTON: The plant that is being
16 proposed I believe is something along 10 megawatts
17 so it is not a large plant, but it is a power project.

18 DR. STEVENSON: Would there be any
19 hope at our latitudes Prof. Bolton for a central solar
20 generating station of this kind?

21 PROF. BOLTON: Oh, yes. I provided
22 you with copies of an article that I have written
23 that has just been published in Chemistry in Canada.
24 In that article I emphasize the point that in Canada
25 the solar energy received is really quite large and
comparable to many other parts of the world. We



1 receive on the average, at least in the southern
2 part of Canada, around 150 watts per square meter.
3 The Sahara Desert is 300 watts per square meter.
4 That is the hottest place in the world.

5 Interestingly enough, in the northern
6 part of Canada, Resolute Bay receives 100 watts per
7 square meter so the solar energy distribution across
8 the world doesn't vary that much.

9 THE CHAIRMAN: That is an average
10 through the year?

11 PROF. BOLTON: That is an average.
12 Now, what does vary is the fluctuations, of course.
13 The point I am making is even in the north if we
14 could develop long-term storage from summer to winter
15 there is more than enough energy to provide heating,
16 electrical, whatever needs for society, no matter
17 where you are in Canada.

18 THE CHAIRMAN: Thank you very much,
19 Prof. Bolton, for that interesting submission. May
20 we move now to Judy McGowan and Ormah Gibson. Are
21 they here?

22 MS. MARJORIE CARTWRIGHT: Judy McGowan
23 and Ormah Gibson are here, but I am not either of
24 them. My name is Marjorie Cartwright and I'm
25 presently Chairman of the Urban League of London.



1 Did the Commission receive our brief
2 submission the other night?

3 THE CHAIRMAN: Yes.

4 MS. CARTWRIGHT: Just for your
5 information, the Urban League is a federation of
6 community associations: ratepayers' groups; ordinary
7 citizens; and none of us are paid. Most of the groups
8 that are affiliated with us come because of the social
9 impact of growth issues and therefore of the many
10 groups here today we were immediately aware of the
11 extreme importance of your Commission and are most
12 interested in its final recommendations.

13 We hope that we will be able to assist
14 you and we very much hope that you will be able to
15 assist us in informing and assisting people outside
16 of the League as well as in in coming to terms with
17 the problems and of some new and innovated suggestions
18 for this Commission.

19 The League would like to address
20 itself to only two things because of the short length
21 of time we had to prepare and they reflect our concerns
22 over the last few years. One is our understanding of
23 the need for integrated long-term planning in all of
24 these issues. We presented many briefs to the
25 government, local and provincial and federal, as we
see the needs of our urban livers affected by



1 transportation, housing, social planning, economic
2 planning. These are frequently looked at on a short-
3 term ad hoc basis for a number of quite understandable
4 reasons, but we find that this is simply not good
5 enough. The planning must be long-term; money must
6 be put into these things and everyone involved and
7 particularly the citizens who tend to be uninformed
8 must be included in this long range integrated
9 planning.

10 The other aspect that we are concerned
11 about constantly and becoming more so every day is
12 that of this innovated field of citizen participation.
13 It is likely one of the easiest issues to raise the
14 blood pressure of local bureaucrats and politicians
15 and citizens themselves and it is unfortunate that,
16 because of the way the media is structured, citizen
17 participation is simply presented as a means of
18 delaying necessary activities and in terms of
19 consultation and conflict. It prevents responsible
20 citizens from proceeding in these affairs because
21 they dislike being painted in these forms and it
22 retains the barriers that bureaucracy inevitably puts
23 up when these highly emotional words are brought
24 forth.

25 We have presented a very brief outline
of our thoughts. They were presented recently to



1 Ontario Hydro for their consideration because, as
2 Madame Plourde-Gagnon has mentioned we are starting
3 here in London an extremely innovated program in
4 citizen participation and hydro-electric planning.
5 I will mention that briefly in a moment.

6 Another point we would like to bring
7 to you is we would very much, thank you, like to have
8 some funding and the means I could suggest for your
9 getting around the problems of this would be/provide
10 sufficient funds to the London Urban Resource Centre
11 which shelters us all for a very small amount of
12 monthly rent, that the Pollution Probe and the Urban
13 League and the Consumers Association and the Woman's
14 Group and all of these people should have somewhat
15 like-minded interest and the concern for long range
16 urban lifestyle planning, that we would like to get
17 together and present a brief, but we cannot do anything
18 further than what we have done now without financial
19 assistance.

20 We would also like to point out to
21 you that the problems we have run into in other
22 citizen participation exercises has been the lack or
23 the unavailability of technical personnel who are in
24 a position to give us objectives and independent
25 assistance. Most people are either tied up with their



1 professional organizations and cannot or will not
2 provide us with opinions or they are hired and some-
3 times subsequently fired by large corporations or
4 large institutions which have a bias in their point of
5 view, naturally. So we find when we are in this
6 situation that we are at a disadvantage and perhaps
7 that is something that you could look at.

8 Just briefly I would like to comment
9 on Mr. Furanna's response to your inquiry about what
10 is going on in London, about the relocation of the
11 transformer station. This is innovative. It was
12 brought to the community of London by Hydro. It
13 was not demanded by irate ratepayers' groups. Hydro
14 has found that their previous means of proceeding with
15 important and sometimes, in their opinion anyway,
16 necessary hydro works has been entirely unsuccessful.
17 Therefore they are prepared, if somewhat reluctantly,
18 to look at some other means of gaining citizen support
19 and the support of elected people. As a result, a
20 public meeting was called and citizens and anyone else
21 concerned were asked to participate. It is going
22 forward. We are looking for consensus planning and
23 we are trying to do it as well as possible in an area
24 where no one knows what to do.

25 I am sorry that Mr. Furanna feels that



1 he has been frustrated. It is a frustrating business.
2 It is difficult, but everyone who is sitting around
3 those tables at the moment I understand is entirely
4 satisfied with the structure that has been established
5 and the work is going ahead.

6 The other comment was from Mr. Craig
7 from the School Board and he mentioned that the
8 citizens' resistance to school closure was in fact
9 causing financial problems to the School Board. Yes,
10 that is true, because they have been indulging
11 themselves in a marvellous exercise of top-down
12 planning for years and the citizens don't like that.

13 Now, the School Board of London has
14 themselves, in response to public concern, attempted
15 a marvellously innovated plan to deal with the
16 problem of dropping school enrolments and I suggest
17 that you look at that. It is very exciting. I hope
18 it and the Hydro programs and all these other ones
19 that we are submitting here are going to work with
20 everyone's co-operation.

21 Thank you.

22 THE CHAIRMAN: Thank you very much.
23 May I mention about the funding. You have no doubt,
24 in the information kit, seen our document on the
25 guidelines and so on for funding.

MS. CARTWRIGHT: I just read it when I



1 came here, so I can't say I have seen it, no.

2 THE CHAIRMAN: This I think will
3 perhaps help with at least one of your problems, the
4 funding.

5 MS. CARTWRIGHT: That is fine.

6 MME. PLOURDE-GAGNON: Referring to the
7 title of your submission, let me tell you it is a very,
8 very realistic title "Elements of Effective Citizen
9 Participation". The element you mention in your
10 document, subtitle "Information" "Decision-Makers'
11 Positions ... must be described as honestly and as
12 clearly as possible."

13 Can you please ---

14 MS. CARTWRIGHT: This document was
15 drafted by Mrs. McGowan and perhaps she would like to
16 respond to it if she is still here but we found that
17 unless the positions are absolutely clear, unless
18 everyone knows where everyone's hidden biases and
19 prejudices are that it will simply not go ahead; I
20 think that is what she means here, that everything
21 must be made absolutely clear at the beginning.

22 MME. PLOURDE-GAGNON: And honestly.

23 MS. CARTWRIGHT: Yes.

24 MME. PLOURDE-GAGNON: And the other
25 thing too about the Task Force from the community, you
mentioned later the implementation but how do you see



1 exactly that this Task Force can go on?

2 MS. CARTWRIGHT: Well, this again was
3 in order to respond to the hydro relocation problem
4 that we have here and Mrs. McGowan attempted to
5 enlarge it somewhat to assist this hearing. We have
6 not given this nearly as much attention as it
7 requires from everyone but what they have set up here
8 for the hydro relocation is a great number of people
9 to come to begin with and those that do can hang in
10 there because you must allow everyone to come at
11 once. We have a tendency here in London, and I am
12 sure in other Ontario municipalities, to pick people
13 and then when they drop off you are left with a tiny
14 group but we would much prefer to see bottom-up
15 planning where anyone who is interested may come.

16 Maybe they will come for three times;
17 maybe they will come for a dozen; but we find surely
18 it is better to make lots of advertising, encourage
19 everyone to come and we find that those that are
20 really concerned will stay in there and concern
21 yourself less about who they are and where they come
22 from, what particular thing they represent, but get
23 the people that are really concerned and keep the
24 information going back out.

25 THE CHAIRMAN: I think this question
of citizen participation of course is a very central



1 issue and certainly the Commission regards this as
2 one of its major preoccupations because we believe
3 that unless we get this then we are just not going
4 to be able to report on an adequate basis very
5 obviously, because we are merely a group of non-experts
6 just listening to you people with experience and
7 expertise in various areas; and we are very grateful
8 to you for bringing us up to date with what you are
9 doing in this field and we will read your further
10 submissions with great interest.

11 I hope, as I mentioned before, that
12 you will submit an application for funding for your
13 work.

14 Thank you very much.

15 MS. CARTWRIGHT: I just want to remind
16 you, that the citizen participation is both expensive
17 and difficult.

18 THE CHAIRMAN: Yes, we know that -
19 Prof. Sullivan.

20 PROF. JOHN L. SULLIVAN: Mr. Chairman,
21 our interests fit in very appropriately with the
22 previous speaker because we are also concerned with
23 participation with the community and our concerns are
24 from the University to other sections of the community
25 and we have done this because of our interests in
environmental concerns and, the quality of life, not



1 in the global sense but as it affects Southwestern
2 Ontario. We believe that some of the studies,
3 particularly in the system's approaches and organized
4 approaches to what is happening and what could happen
5 in Southwestern Ontario could have important results
6 which would be of benefit to other places.

7 However, I realize today we are not
8 here so much to make detailed presentations of what
9 we believe should be and could be possible but I'm
10 here mainly to tell you some of our concerns about
11 what could happen in Southwestern Ontario and what we
12 foresee or fear some of the possibilities might be.

13 With this in mind we set up three
14 years ago a new group on campus called the Southwestern
15 Ontario Group. This is not very imaginative but we
16 did not want to strain the group's Terms of Reference
17 by a title which might be more restrictive and we
18 were looking around for what might be our ultimate
19 objectives, but the Southwestern Ontario Group is a
20 group which is comprised of people from the campus,
21 faculty, from all faculties, not only engineering, to
22 which I belong, but social sciences and sciences and
23 humanities; and also on the Group are people from the
24 community, and the people who are from the community
25 are mainly second-career professionals. They are



1 people who are largely retired or have retired from
2 an active life but have had a lifetime of professional
3 experience in the environmental and/or social
4 management fields.

5 One of the people who stimulated us
6 to do this was the former Chairman of the Ontario
7 Water Resources Commission, Dr. James A. Vance, who
8 has become the Chairman of the Southwestern Ontario
9 Group and it is our purpose to try and bring together
10 this body of expert opinion or professional opinion
11 to look at various problems which might affect
12 Southwestern Ontario.

13 Now, obviously most of these are
14 well known. We are concerned with the potential for
15 land use and the effects of development on land use.
16 We are concerned about the increasing rate of
17 development which may affect land use, farmland in
18 Southwestern Ontario. We see this is one of the last
19 years of diverse farming and it could be affected by
20 an over-rapid development or even extended further
21 development of any kind; and we are anxious that we
22 have, before this happens, or before it can go too far
23 that there should be studies and recommendations made
24 which could lead to a more orderly development of the
25 area.

We have heard from various places that



1 the quality of farmland disappearing is quite
2 astronomical and this could have adverse effects not
3 only to Southwestern Ontario but for Canada as a whole
4 in the future.

5 Now the people who belong to this
6 have various concerns. Some are people from a
7 background of industry who want to see a certain
8 controlled development and there are people with a
9 background of environmental concern.

10 We are also looking from beyond
11 university and beyond the Group to what concerns the
12 outside population.

13 Now, we are not a negative group. We
14 are not concerned to say there should be no development
15 in Southwestern Ontario less that interferes with
16 farming because there are also many negative develop-
17 mental influences in Southwestern Ontario. The plight
18 of the small cities, for example, is one which
19 concerns us and we see here diminishing services,
20 particularly public transport which is causing a
21 severe problem in many small cities in Southwestern
22 Ontario and which is causing people to leave the
23 smaller areas and go to the larger areas.

24 So it is not a question that we are
25 in favour of zero or static growth. We are in favour
of controlled growth and this controlled growth should



1 take account of the human factors involved.

2 So we are looking at it not with a
3 prejudged opinion but we believe that we need to have
4 a lot of inputs of data; we need to apply system's
5 approaches to analyzing the future. We see energy,
6 electrical energy particularly as a very big factor
7 in this because in the past electrical energy has
8 been inclined to go from larger to larger units with
9 greater and greater distribution areas with extreme,
10 in many cases, environmental implication, environmental
11 effects, and what Prof. Hooker said here today earlier,
12 it may be that we need to retreat to a certain
13 distance in which we will see smaller units of
14 production, in which we tailor the units to local
15 considerations and not spread them far and wide.

16 However, we are more than concerned
17 with the possibility that increases in the electricity
18 production in Southwestern Ontario or even
19 distribution in Southwestern Ontario could encourage
20 greater development of industry; could encourage
21 greater urbanization; and we see also it has a factor
22 in controlling such influences. So this is partly
23 what the Southwestern Ontario Group is about. We
24 are aiming to increase our participation with the
25 community and we are anxious and very willing to take
part in a group such as the last speaker spoke about,



1 and this is one of our roles.

2 We have up to date in the past year
3 or two arranged quite a number of seminars and
4 addressed ourselves to consideration of some of the
5 problems as we see them. These concern the
6 management of solid waste; adequate management have
7 transport in Southwestern Ontario, especially in the
8 public arena; Great Lakes Transportation; energy
9 production and its environmental impact; and similar
10 issues.

11 In the present few months we are
12 organizing a series of seminars with the participation
13 of the small cities and large cities in Southwestern
14 Ontario to try and address ourselves to the types of
15 problems which affect the communities. We are
16 envisaging a series of planning seminars in which we
17 can look at the plight of some of the cities which we
18 know quite well exist and which we hope to analyze
19 and perhaps ultimately put into the type of mathematical
20 model or whatever it may be from which we can adduce
21 results which would be of ultimate benefit to the
22 community.

23 During the next few months while this
24 Commission is proceeding to its further stages we are
25 hoping that we will put together our thoughts in a
much more reasoned way and more co-ordinated way and



1 produce a much more complete account and
2 recommendation of what we hope will be the development
3 of electrical energy and other aspects of Southwestern
4 Ontario.

5 Thank you, Mr. Chairman.

6 THE CHAIRMAN: Thank you, Prof.
7 Sullivan.

8 DR. STEVENSON: Prof. Sullivan, it is
9 with very great pleasure that I thank you for this
10 statement. I think the tables are a bit turned here.
11 You have invited me down to participate in one or two
12 seminars of your Southwestern Ontario seminar and I
13 have not been able to make it yet but there may be a
14 chance now.

15 The objectives of your Group, as you
16 have laid them out in this submission, seem to me so
17 totally appropriate to the multi-disciplinary concerns
18 of this Commission that it seems to me the time has
19 come for us to work together in some way that I don't
20 think we can clearly establish it today. You talk
21 of further seminars. I'm sure you can find one that
22 will relate appropriately to our Terms of Reference
23 and when you do I hope you'll call on us, our
24 Research Staff and Resources that will be collected
25 in Toronto and perhaps one of us can come down and
participate or two of us, or whatever, because your



1 concerns with the very broad questions of urbanization,
2 use of land, energy, are our concern.

3 I don't have a question. I just have
4 that observation.

5 PROF. SULLIVAN: That gives me great
6 encouragement, Dr. Stevenson. I've been trying to
7 get you, as you say, but you are obviously very busy
8 with many other responsibilities.

9 MR. McCAGUE: Prof. Sullivan, you
10 have made reference to common interests you likely
11 have with the Urban League and we have I think three
12 or four farm marketing groups represented here today.
13 Would you have common interests with them as well,
14 would you expect?

15 PROF. SULLIVAN: Yes, very much so. We
16 set up the group with major emphasis to provide a
17 better relationship and better interaction in the
18 community at large in the analysis and understanding
19 of problems as they affect Southwestern Ontario and
20 in fact, well beyond Southwestern Ontario. It so
21 happens that we have here an ideal laboratory for our
22 type of study. It is bounded in the area by the lakes.
23 The lakes play an important part in the life of the
24 community and it has a great diversity of different
25 developments and it's virtually ideal for any type of
development, as we indicate in our submission.



1 MR. McCAGUE: Would you think there
2 was a prospect of your co-operating with various
3 groups on a particular issue or issues?

4 PROF. SULLIVAN: Certainly. That is
5 our whole objective.

6 MR. McCAGUE: On which research may
7 be required -- it strikes me you have the potential
8 of a research group within your own organization?

9 PROF. SULLIVAN: We certainly have,
10 and this is what we are proposing to do. We are
11 trying to get the information, through interaction,
12 to the community as inputs into what we hope to be,
13 a system's approach to modelling of some of these
14 things.

15 We believe, for example, with energy
16 it is well to talk about the innovative and new forms
17 of energy but we have to put these into a time
18 constraint as has been stated and well recognized.

19 We also have to think in terms of the
20 needs of the communities, the future demographic
21 developments and maybe in of over-all development in
22 terms of all these in-puts, whether we need to have
23 500 volt lines; whether these need to be streaking
24 across Southwestern Ontario or any other part if we
25 can organize the system differently; and we are not
(inaudible) in these schemes but we just want to look



1 at the situation and look at the possibilities through
2 the application of mathematical and system type
3 models with the environmental constraints.

4 THE CHAIRMAN: Thank you very much,
5 Prof. Sullivan.

6 Before I ask Mary Fisher to come
7 forward, I expect some of you, and I see some of you
8 are leaving - I have been asked to remind everybody
9 here that we would be most grateful if you would fill
10 in the very small questionnaire that is included in
11 the information kit.

12 I think pencils are provided somewhere,
13 but this sort of information is of tremendous use to
14 us and I would urge you, please, to leave it somewhere
15 around at the back; and this would be most helpful.

16 May I ask Mary Fisher to come forward.

17 MS. MARY FISHER: Mr. Chairman, members
18 of the Commission, it is my privilege today to
19 represent the Consumers Association of Canada from
20 London and district.

21 I might say at the outset that I am
22 very pleased to see Dr. Stevenson on this Commission.
23 I had the privilege of working with him before and I
24 know everyone will be given a fair shake where he is
25 concerned. I'm very pleased to see you here, Bill,
and very pleased to be here to represent some of the



1 consumer viewpoints.

2 Possibly some of the things that I
3 will say have been repeated earlier. I just heard
4 the last speaker and the tail-end of the previous
5 one. We are expecting that the provincial organization
6 will give you an input into the formal hearing as
7 part of our advocacy program but this is just a little
8 rundown of how consumers in London possibly feel about
9 power planning. We will have a few questions as well
10 as bring a few concerns to your attention.

11 One of the Rights of consumers is the
12 right to be heard. We congratulate the government
13 in setting up this Commission, in an endeavour to
14 involve people in the politics of energy, which could
15 well be the most significant and important aspect of
16 politics in the next decade or even two.

17 The CAC thinks you face a difficult
18 challenge in getting people to respond to your
19 challenge of helping to chart the future of Ontario.
20 The distrust of consumers at this time in its
21 politicians, decision-makers, corporations and more
22 recently marketing Boards is manifest. Undoubtedly
23 you will hear from the organized and the educated
24 but will the farmer on a concession road who has had
25 a bad experience with the hydro corridor, the widow
trying to maintain her independence in her home, or



1 the Indian on the reserve come forward and speak
2 their minds. We feel that there is a little
3 intimidation and that they will still be reluctant to
4 tell you what they think.

5 The first question that I will pose
6 and then I will go on and possibly give you these at
7 the end is how can Ontario communities encourage the
8 fullest, possible participation in the Commission's
9 activities and prove its credibility to the public?

10 Now, first, in everyone's mind these
11 days is the size of the hydro bill and the prospect
12 of the next one being even higher.

13 London consumers were like the Hon.
14 Darcy McKeough, appalled when Ontario Hydro originally
15 proposed an increase of 29.7%. They are still
16 appalled about a 27% increase. But what can consumers
17 do but trust in their elected representatives in the
18 legislature to employ the best available resources to
19 determine the minimum requirements of outlay to meet
20 out needs. We trust that someone will see to it that
21 we will have a stable supply of electricity at the
22 lowest possible cost.

23 Consumers will continue to be uneasy
24 for some time, at least those of us born before 1945.
25 Those born since have never known a different life
style than the push button era we have enjoyed for a



1 full generation.

2 How much convenience are we willing
3 to sacrifice? What concepts of this new life style
4 will we still want to retain in the future? Can
5 alternatives be presented? Can growth precede more
6 gradually than first projected?

7 Question No. 2, is it prudent at
8 this time of economic crisis to allow electrical
9 energy demand to double in 10 years?

10 Nuclear energy would seem like the
11 answer to a province rich in uranium, but unable to
12 meet its needs from other energy sources. But can we
13 believe the experts who assure us that there is no
14 real danger. Has the accumulative effect of
15 radioactive discharge been fully tested?

16 Question No. 3; can we assume
17 infallibility in the engineers and technicians already
18 deeply committed to the idea of nuclear expansion?

19 A word about alternatives to non-
20 renewable resources... These are just a few - solar
21 energy, energy from animal and vegetable waste and
22 the energy output from power plants.

23 Question 4, is enough money being made
24 available to researchers looking for alternative
25 energies? Should the programme be stepped up if the
crunch is inevitable?



1 No, I understand that energy in the
2 form of hot water from nuclear plants could be used
3 to provide space heating and cooling in large urban
4 areas.

5 The responsible use of electricity;
6 one of CAC's major concerns has been the question of
7 electricity abuses through personal use, commercial
8 lighting, neon signs, hotels, hospitals, nearly all
9 public institutions, apartment units where the cost
10 of electricity is included in the rent, and last but
11 not least excessive packaging and non-returnable
12 containers come to mind.

13 Is air-conditioning often excessive or
14 unnecessary?

15 Do swimming pools have to be heated
16 in July? Or even at all?

17 How many electrical gadgets to we
18 actually need to enjoy a high quality of life?

19 How many could be termed unnecessary?

20 Do we really need all the lights
21 blazing, the heat or the air-conditioning functioning
22 in supermarkets and shopping plazas for a few shoppers
23 night after night, and some even on Sunday?

24 Do consumers really need unlimited
25 store hours to shop when they only work a 40-hour
work week, and there is talk of it being even shorter.



1 In planning for the future should we
2 give some thought to the health of consumers and
3 their physical fitness. We have become so dependent
4 on electrical energy that we have been termed
5 physically unfit. It's a little ridiculous to think
6 of a golfer riding around the golf course in a cart
7 when the purpose of the activity was originally
8 healthful, outdoor exercise.

9 Perhaps this is the opportunity to
10 look at our demands and re-evaluate the necessities.
11 Forget about the old axiom that we could use as much
12 electric energy as we were prepared to pay for. We
13 suggest that everyone must be prepared to accept
14 responsibility for the benefit of the majority. We
15 don't know how to suggest that this be accomplished but
16 we feel that is the only answer.

17 Consumers should first be challenged
18 to assess the non-essential demands on electric
19 energies and determine their own priorities in its
20 use. And if this fails we'll have to be treated like
21 children and have restrictions enforced.

22 Question 5; would the Commission see
23 fit to encourage the Canadian Electric Manufacturers'
24 Association to engineer mechanisms to conserve electric
25 energy? It seems that all the devices that are put
on the market are designed to use more of it.



1 Another electric energy conservation
2 strategy involves improved appliance design. The
3 energy efficiency of air-conditioners, freezers,
4 refrigerators and electric water heaters varies
5 considerably from model to model. If all appliances
6 were as efficient as the most efficient model a
7 healthy chunk of residential electric power
8 consumption would not be lost through inefficient
9 product design. And this could even be carried over
10 into industrial design as well.

11 CAC suggests that the Commission
12 consider appliance design an important aspect in
13 electric power planning, and encourage consumers to
14 distinguish between the efficient and inefficient
15 models in making their choices in the marketplace.

16 Consumer education is the most
17 important priority in our Association. You are aware
18 that we are unpaid volunteers and we operate on a
19 very, very tight budget. In London we have
20 approximately 2,000 members but it was difficult for
21 the President, Mrs. Lee, to get someone to represent
22 us today. I was out of town and did not know of
23 this hearing until Monday. We know it is difficult
24 to get our message to those who need us most. The
25 work of the Commission is important and affects all
of us as well as future generations and the last



1 speaker I heard mention about getting across to the
2 public what is being done here. The members of this
3 Commission will not likely have their picture on the
4 front page of the Free Press like the Happy Hooker
5 did a couple of weeks ago. But we do urge all forms
6 of mass media to keep the public informed on the
7 highlights of the input to the Commission as it moves
8 around the province.

9 We feel that this is necessary and
10 that the final will even be more significant if we
11 are aware.

12 CAC London will assist, to the best
13 of its resources, in creating public awareness. We
14 would be willing to assist local resource persons in
15 reaching interested organizations, school assemblies
16 or rap sessions.

17 We are grateful for the excellent
18 consumer information that is now available through
19 the London P.U.C. and Ontario Hydro. Is this
20 information important enough to use prime time on T.V.
21 to educate more consumers?

22 And one final question, 6, a rather
23 personal one, how many of the recommendations of
24 Task Force Hydro have been implemented and where would
25 one receive a progress report? All my knowledge about
it is mostly what I have read in the Globe and Mail and



1 the London Free Press.

2 Thank you very much for your attention.

3 THE CHAIRMAN: Thank you very much,
4 Mrs. Fisher. I think Solange may very well have
5 some questions.

6 MME.PLOURDE-GAGNON: You make a point
7 of many questions asked, first of all when I was
8 nominated as representative of the consumer I said
9 how can the ordinary consumer get involved in the
10 discussions because in our Terms of Reference we have
11 lots of industries, land use, farms, environment,
12 these are very important, but the ordinary consumer
13 is also very important and it is another key aspect
14 of our terms. For me the ordinary consumer is not
15 only a consumer but a taxpayer, is deeply involved in
16 the family budget, I would like to get many people
17 like you to talk about the real problems at this level,
18 the ordinary consumer level problem.

19 MRS. FISHER: And we are very happy
20 to have a consumer representative on this Commission
21 and we hope that we will invite comments from many,
22 many people who will probably put more input into the
23 Commission.

24 MME.PLOURDE-GAGNON: And I'll have
25 many questions to ask you, but not today.



1 DR. STEVENSON: Mary Fisher sometimes
2 masquerades as a typical London housewife and mother.
3 She is probably one of the best informed energy
4 experts in this province. She was on the Advisory
5 Committee on Energy that established the Ministry of
6 Energy; she was an adviser to Task Force Hydro; and
7 somehow, Mary, we will get you a report on the number
8 of recommendations that were implemented. She is not
9 a typical London housewife no matter how she may
10 portray herself.

11 MME.PLOURDE-GAGNON: Just before we
12 started the meeting, someone from the PUC made a
13 suggestion. He said instead of calling a woman a
14 housewife why not household engineer, PhD, but you
15 have to ask him what PhD means.

16 THE CHAIRMAN: You will certainly have
17 a PhD before we are finished.

18 Thank you very much, Mary.

19 Next on our list is Marc Reynolds.

20 MR. REYNOLDS: Mr. Chairman, and
21 members. I am an employee of Diesel Division of
22 General Motors of Canada and my purpose in being here
23 is less to make a sort of a plea as to provide some
24 information in an area perhaps more cogent in your
25 planning, of what can be done in terms of energy
conservation.



1 Diesel Division, General Motors of
2 Canada, is a heavy manufacturer which is engaged in
3 the production of locomotives, buses and earth moving
4 equipment. It is a moderate user of electrical power
5 for lighting, for production machinery and in welding.

6 We have incorporated in our brief to
7 you a chart which displays the act of utilization that
8 we have experienced over the past five years. I will
9 not go into detail at this time on that chart. We
10 have also displayed it pictorially in the form of
11 graphs. One point of explanation that I feel is
12 necessary, we used as a measuring tool the productive
13 labour hours. This indicates for us what some people
14 might consider as a unit of production. Because of
15 the complexity and various nature of our products we
16 find that this is the best figure to use to indicate
17 our productivity.

18 In summary from the information on
19 the charts and graphs, the average annual increase in
20 peak demand over the five year period is 10.4%. The
21 average annual increase in consumption is almost 12%
22 over the same period. The average annual increase in
23 productive labour, however, is 19% resulting in a
24 reduction in kilowatt hours per productive labour
25 hour from approximately 15 to approximately 12,
demonstrating a significant improvement in the



1 productivity of electrical energy as used in our
2 Division. This achievement is largely the result of
3 conservation efforts by the Division. There has been
4 a massive effort to save energy and it has effected a
5 savings of almost 25% in the past two years. This
6 has been achieved by an effective energy conservation
7 program under a permanent committee which has enjoyed
8 a high measure of employee and management co-operation.

9 However, most major economies are now
10 in effect and it will be most difficult to maintain
11 even 5% per annum of further savings.

12 I have included in the brief some
13 detail on the methods, some of them quite mundane,
14 for achieving this sort of power reduction.
15 Contrary to the Public Utility Commission's experience
16 the average consumer in London whose consumption rate
17 is increasing, we have been able to get ours to
18 decrease.

19 Thank you, Mr. Chairman.

20 THE CHAIRMAN: Thank you very much,
21 Mr. Reynolds.

22 MR. COSTELLO: Are you sure you are
23 getting the same amount of work for productive labour
24 power today as you were getting eight years ago?

25 MR. REYNOLDS: Yes, we have enjoyed a
significant period of growth in the past five years.



1 MR. COSTELLO: Time studies can
2 confirm it?

3 MR. REYNOLDS: Time studies can
4 confirm it, yes.

5 MR. COSTELLO: You know as well as
6 most of us, the more pay, the less work you seem to
7 get done. So if your productive labour hours increase
8 I begin to wonder if you are not getting as much work
9 out of the people or if you are turning out more goods.

10 MR. REYNOLDS: Productivity per person
11 is increasing. That doesn't necessarily mean that the
12 individual is working any harder than he used to. It
13 could be said that we achieved this through higher
14 utilization of manual labour but this is not true at
15 today's labour rates. We are using technology more
16 intensively but we have achieved this saving essentially
17 through the elimination or reduction of waste.

18 MR. COSTELLO: It is an interesting
19 approach. In the last five years (inaudible).

20 MR. ROSEHART: Maybe just one comment
21 here. I notice in looking at your graph you have
22 indicated you had a certain growth rate over the past
23 few years and up to I believe 1990 you are predicting
24 substantial increases. Do you foresee any limit to
25 the activities of General Motors Diesel in London?
Do you anticipate the company will be in an ever-



1 increasing or expanding role?

2 MR. REYNOLDS: I think as a
3 manufacturer it is difficult to project even into the
4 planning period of this Commission. We have indicated
5 on our last chart anticipated growth figures which we
6 feel are only reasonably accurate until 1980. Beyond
7 that point they are merely projections.

8 We are in a capital goods business
9 and growth in that business will be a function of the
10 general economic conditions of this country and as a
11 matter of fact in the world, because we do some
12 exporting.

13 MR. COSTELLO: One point I wondered
14 about, in Ontario, as you know gas and oil -- Ontario
15 does have their own railroad, the ONR runs from
16 North Bay to Moosonee and goes as far as (inaudible).
17 It crossed my mind before this study is over somebody
18 is going to bring up the prospect that that road be
19 electrified.

20 MR. REYNOLDS: That may be so, sir,
21 but that is beyond my knowledge.

22 DR. STEVENSON: I have observed that a
23 number of large Ontario industries are undertaking
24 quite formal energy conservation efforts. Some of
25 them seem to be designed quite clearly to reduce their
electric power bill as opposed, let us say, to a



1 reduction in kilowatt hours per se. In other words,
2 they are going after both the power charge or their
3 peak demand and the kilowatt hour take.

4 Have you gone after the energy
5 kilowatt hours alone or are you also looking at your
6 maximum demand to see whether that can be reduced?

7 MR. REYNOLDS: I think you will find,
8 sir, indicating from the charts that our demand has
9 levelled off considerably. Certainly we are concerned
10 about cost of electricity. There is a billing charge
11 for peak demand and we have taken steps to reduce that.
12 We consider that of equal importance to consumption.
13 It is the peak demand of course which determines the
14 generating capacity over the whole system, over the
15 whole grid.

16 For our own purposes, peak demand
17 represents an additional charge so it is to our
18 advantage to reduce that as well as consumption.

19 DR. STEVENSON: Some of the mines in
20 Northern Ontario have had spectacular success in
21 reducing the peakingness of their take of electricity
22 by shifting consumption around during the daytime, not
23 doing certain things at their peak time of the day or
24 the month and found that without much reduction in
25 kilowatt hour consumption they achieve quite remarkable



1 savings on their monthly bills, so that is of interest;
2 but you are looking at both sides as well.

3 Thank you.

4 THE CHAIRMAN: Thank you very much,
5 Mr. Reynolds.

6 MR. REYNOLDS: Thank you, sir.

7 THE CHAIRMAN: Mr. Brown and Helen
8 Hines.

9 MR. ALEX BROWN: Mr. Chairman, I
10 represent the Energy and Environmental Committee of
11 the Chamber of Commerce. We have an interest in the
12 environment and energy in particular and it is timely
13 that perhaps your Commission is meeting here in London
14 today.

15 I would like to read something to you
16 that occurred in Calgary. It is concerning the
17 Chamber's statement of policy on energy. This reads
18 as follows:

19 "The need for conservation of
20 energy is not readily apparent to
21 most Canadians nor is it understood by
22 them. There has been no shortage of
23 energy that has directly affected the
24 consumer. The consumer is being
25 temporarily protected from rising
world prices which has not highlighted



1 "need for conservation in Canada.

2 There have been no long lines of
3 automobiles waiting for purchase of
4 gasoline at service stations; there
5 has been no mandatory speed
6 restrictions placed on highways; there
7 has been no lack of adequate supply
8 of any form of energy to this point."

9 The President of the London Chamber of
10 Commerce attended that meeting and came back rather
11 concerned about it and he expressed his views to our
12 Committee that perhaps we should investigate it and
13 are
14 we did and/in the process of doing so.

15 Our interest of course concerned all
16 energy as opposed to just hydro electric. We hope
17 that maybe some of the work we have done now you may
18 be able to apply to your own Commission. We have had
19 only two meetings. We are fairly young. From that
20 point of view, however, we attempted to point out just
21 what material was available, the effectiveness of the
22 material and the way it was presented. I am speaking
23 of printed matter from the different sources on the
24 conservation of energy. As I said earlier, we have
25 only had two meetings. The first was of course only
an organizational meeting and the second was the
evaluation of the material and the consensus at that



1 second meeting was that the material of which is
2 available was quite voluminous. There is quite a bit
3 of material available on the conservation of energy
4 and most of it is free. Indeed you could write to
5 the United States and get considerable material on
6 the conservation of energy both from the domestic as
7 well as commercial point of view. There are some
8 excellent booklets available, and why the statement
9 in our policy is such - is it lethargic or misunder-
10 stood theme in Canada. Why are we not conserving
11 energy and it is at this point that we are directed.
12 I cannot come to any final conclusion yet. As I
13 said we have made only primary in-roads into the
14 matter but in the material that we have available
15 there are two things that glaringly stand out and one
16 of them was pointed out earlier this afternoon.

17 A central agency is definitely
18 required, in our opinion, to disperse information both
19 to the public and to commercial enterprises. We are
20 thinking more in terms of the small manufacturer as
21 far as the commercial enterprise is concerned, the
22 purchasing agent who has to make a decision on whether
23 to buy a piece of equipment based on initial cost
24 only as opposed to the over-all energy consumption in
25 a period of time. Where does he go to get that
information? He is a small manufacturer and may not



1 have the engineering facilities available to advise
2 him properly.

3 In the domestic field we felt there
4 was quite a lethargic attitude by the general public
5 to go to the Hydro, go to the PUC, to go to the
6 different agencies to get this material. As a result
7 a central agency is recommended.

8 The other recommendation that we have,
9 again based on our preliminary studies, is that a
10 more positive and emphatic advertising campaign and
11 advertising should be done. We have established
12 that the campaign in advertising that is being done
13 now by the different utilities and petrochemical
14 people is being listened to but it is not emphatic
15 enough. It is not motivating them to conserve energy
16 the way it is designed to do.

17 We felt that more emphasis on how to
18 conserve energy - sure, it is easy enough to add
19 insulation to your home, to switch the extra light
20 off, but what about putting a couple of squirts of
21 oil on the fan that operates the blower in your
22 furnace, this type of thing.

23 Sir, we present this information and
24 hope that possibly it will be of some help to you.

25 THE CHAIRMAN: Thank you very much,
Mr. Brown.



1 MR. McCAGUE: Mr. Brown, have you any
2 specific suggestion by way of the management or
3 control or supervision of the central agency that you
4 propose?

5 MR. BROWN: No, we do not. I might
6 tell you that it was proposed that possibly the agency
7 should be the Chamber of Commerce but cost, material
8 available, these have not been gone into yet. As I
9 said earlier, our studies are quite preliminary.

10 We believe that an agency probably
11 sponsored by the government where all material
12 available could be either put in booklet form or
13 readily distributed to those who require it, whether
14 it be for hydro or petrochemical or whatever.

15 MR. McCAGUE: The Calgary meeting that
16 you referred to, is this central agency in force in
17 any jurisdiction that you know of?

18 MR. BROWN: No.

19 MR. McCAGUE: Thank you for a very
20 interesting point, sir.

21 THE CHAIRMAN: Thank you very much,
22 Mr. Brown.

23 I wonder at this time I would like to
24 ask Reeve Garnett Bloomfield if he would like to make
25 a submission.

MR. BLOOMFIELD: Garnett Bloomfield,



1 I am from the rural sector, I am a farmer and Reeve
2 of a rural municipality, London Township. I am not
3 here representing London Township as such. I'm just
4 here as an individual farmer.

5 My basic concern, and it relates to
6 some of your material on what you have given out and
7 in particular, to the land use and regional implications
8 and it reads in general, "What are the implications
9 of long range of electric power planning for agriculture
10 in Ontario in terms of both available acreage and
11 food production".

12 That is where I would like to address
13 myself, and the planning of Hydro's nuclear and other
14 plants.

15 If I am understanding it properly,
16 the Hydro Commission is conducting these hearings and
17 then you will make a report to the provincial
18 government, is that true, Mr. Chairman?

19 THE CHAIRMAN: You mean in connection
20 with some of these priority projects that the hydro
21 public participation meetings are certainly going on
22 but of course they are completely independent of
23 this Commission. Is that what you are referring to?

24 MR. BLOOMFIELD: That is fine, thank
25 you.

As I say, my main concern is the



1 planning and location of your hydro plants and where
2 you build these plants is going to determine where
3 industrial and residential development will go. It
4 is like a wheel. As you build the plants then you
5 get industrial and then residential and it just
6 compiles and compiles so Southwestern Ontario, as I
7 appreciate, the Southwestern Ontario Group spoke well
8 for the rural sector, is unique in Canada in that we
9 can grow crops in this area that can't be grown other
10 places and also it is not known how detrimental your
11 nuclear hydro plants are to certain crops.

12 Urban and rural people alike have much
13 at stake in this because as society I am assure agrees
14 in the preservation of agricultural land but I am not
15 so sure that some Commissions and some planners, that
16 this has filtered through to them yet.

17 Some two years ago, I think it was,
18 there were meetings held and it was proposed they were
19 going to run two or three power lines, 500 Kv I think
20 it was, into our area and it was suggested to me at
21 that time when I challenged them that they were just
22 filling a need. I countered by saying that if they
23 built that line they would just be supplying power
24 for industrial complex in this area. Just as the
25 hound follows the hare one would be just as sure as
the other.



1 I think we still have the opportunity
2 of choosing whether we are going to preserve
3 agricultural land or whether we are going to continue
4 burying the topsoil and topsoil is something that
5 they are not making any more. You can't go down to
6 the corner grocery store and buy any more of it.
7 There is just so much made.

8 So we would do well to consider the
9 future now and I would like to suggest if this
10 generation fails to plan or neglects to plan property
11 there will be no second chance to talk about
12 preserving good agricultural land. It will be gone.

13 As you folks must realize, our farm
14 groups and farm people, some of them are represented
15 today, but most of us are trying to get the odds and
16 ends tidied up before winter, but I am sure we will
17 be deeply interested and involved in future meetings
18 that you might have so I would just like to say
19 thank you for the opportunity of making this brief
20 presentation and thank you again.

21 THE CHAIRMAN: Thank you, Reeve
22 Bloomfield.

23 I don't know whether George would like
24 to make a comment.

25 MR. McCAGUE: Mr. Bloomfield, you made
reference to the earlier presentation. It would be a



1 great thing if we could get a combining of views and
2 efforts from urban and rural. Do you see a potential
3 here of pooling your interests and getting together
4 to say what you want to say by way of land conservation?

5 MR. BLOOMFIELD: I am very interested
6 in that and I wish I could have had the opportunity
7 of speaking - I did not get his name, the chap from
8 the Southwestern Group. Certainly I think the
9 farm people should be speaking to the urban and I
10 think our aims are not all that much different.

11 MR. McCAGUE: Indeed. This could
12 serve a tremendous purpose because I wonder if we are
13 all as conscious as we must be or should be with regard
14 to preservation of that topsoil. We are all
15 listening. I think the consumer, all consumers, are
16 listening and becoming aware and maybe joining up
17 forces would be one of the best moves that could be
18 undertaken. I don't know.

19 MR. BLOOMFIELD: I could not agree with
20 you more. I think that is a real good point.

21 THE CHAIRMAN: Thank you very much
22 again, Reeve Bloomfield. Before we adjourn until this
23 evening there was one brief that could not be
24 presented this afternoon because Prof. Swartman I
25 believe is in Greece at a meeting, presenting a paper
there.



1 This is not a long brief and if you
2 don't mind I would like to read it so that it is on
3 our record, so to speak.

4 "Brief to Royal Commission on Electric
5 Power Planning -

6 I am unable to attend the meetings in
7 London on 28 and 29 October. But I wish to
8 suggest several items for the consideration
9 of the Royal Commission.

10 I suggest that the provincial government,
11 and the Ontario Hydro particularly, seriously
12 consider other energy sources in the future
13 than nuclear or fossil fuels. I believe we
14 will have to rely eventually on the
15 renewable sources of energy, especially solar
16 energy. I believe we should be considering,
17 now, how we will utilize solar and wind
18 energy and biogas, and what adjustments we
19 must make to our living habits.

20 We do not presently pay the replace-
21 ment value of fossil fuels or nuclear fuels.
22 If we added a surcharge on all conventional
23 fuels to pay for their replacement, the
24 revenue could go into development of the
25 renewable energy resources.

 I am pleased that the Ontario Ministry



1 "of Energy has been encouraging, through
2 recent engineering studies, the development
3 or demonstration of solar and wind energy.
4 The Ontario Hydro, however, has not given
5 any encouragement in the field of renewable
6 resources. Their future seems to be
7 dependent on nuclear power stations. We are
8 not really sure of the environmental effects
9 of the nuclear plants nor do we know what to
10 do with the nuclear wastes. I feel we should
11 go slowly in the construction of more nuclear
12 power stations.

13 If going slowly means "brownouts", I
14 believe everyone should understand the reason
15 and have the Ontario Hydro promote conservation.
16 The Hydro could be encouraging conservation
17 research and the development of heat pump/
18 solar energy combinations. I cannot accept
19 the argument that Hydro must accelerate its
20 generating capacity at such a phenomenal rate.
21 The Lennox G.S. is available for power
22 generation now, possibly two years before the
23 transmission lines are available. It seems
24 that the Ontario Hydro is obsessed with '100%
25 assured service' rather than accepting '99%'.



1 "I believe most customers would accept it.
2 Even now when areas of the city are
3 'blacked out' due to an ice storm, people
4 are concerned but nevertheless understanding.

5 But when we see the bottom of the oil
6 barrel or there is not much gas left in the
7 pipeline, will we have enough uranium to
8 last forever? It seems we will have to turn
9 to the renewable resources eventually. Why
10 not now, before we damage the environment
11 any more?"

12 I would like at this time to thank
13 you for your participation this afternoon. This
14 evening's session at 8 o'clock will be rather informal
15 although there will be three or four briefs being
16 presented.

17 MR. McCAGE: I'm not sure, Arthur,
18 whether the Bean Producers Marketing Board plans a
19 presentation this afternoon or this evening. Could you
20 speak to that, Mr. Durant?

21 MR. DURANT: It is up to the Commission,
22 if you feel you want to take time at this time.

23 THE CHAIRMAN: Would you be available
24 this evening?

25 MR. DURANT: Yes, I would.



1 THE CHAIRMAN: I think we would
2 certainly provide time. The evening submissions, just
3 for the interest of all of you, are from David
4 Peterson, the member of the provincial parliament for
5 London Centre; Paul Carroll of CANTDU, Goderich,
6 Ontario; Bruce King, Environmental Planner; and Mr.
7 Durant of the Bean Association.

8 We will get together again, shall we
9 say, those of you that can come and I hope many of you
10 will, at 8 o'clock this evening.

11 Thank you very much. The meeting is
12 adjourned.

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15 ---Whereupon the Meeting adjourned.
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THE ROYAL COMMISSION ON ELECTRIC POWER PLANNING

*Preliminary Meetings of the Royal
Commission on Electric Power Planning*

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ROYAL COMMISSION

ON

ELECTRIC POWER PLANNING

Meeting held at the Carleton
Room, Holiday Inn, London,
Ontario, on the 29th day of
October, 1975 at 8:00 p.m.



MEMBERS OF THE COMMISSION:

DR. ARTHUR PORTER	CHAIRMAN
ROBERT E.E. COSTELLO, ESQ.	MEMBER
MME. SOLANGE PLOURDE-GAGNON	MEMBER
GEORGE MCCAGUE, ESQ.	MEMBER
DR. WILLIAM W. STEVENSON	MEMBER



A
29/75

1 --- UPON COMMENCING AT 8:08 P.M.

2 THE CHAIRMAN: Introductory remarks.

3 MR. PAUL CARROLL: Mr. Chairman,
4 and Members of the Commission. It certainly gives
5 us a great deal of pleasure to be with you this
6 evening and make our preliminary presentation. I
7 don't expect that it will take very long and hope
8 that it is within the parameters of the
9 expectations of this meeting.

10 In the first place, I would like
11 to briefly outline what CANTDU is and we can go on
12 to the issues that we would like to have the
13 Commission ultimately consider.

14 CANTDU is a citizens' group which
15 has been actively studying electric power planning
16 in Canada since 1973. Our primary concern has been
17 the proposed extension of electrical generating
18 facilities using nuclear technology as the power
19 source. Our activities are based on a self-education
20 programme which was undertaken in 1973. In early
21 1974, we published a major position paper entitled
22 "A Case for Alternatives to Nuclear Power" which
23 has been circulated across the nation and has
24 become, since that time, the basis for our continuing
25 dialogue with the proponents of nuclear power.



1 We consider ourselves to be rational
2 and responsible citizens who are expressing legitimate
3 concerns about the growth of energy production
4 facilities using nuclear power.

5 Our purpose in appearing before the
6 Commission at this time is simply to present a list
7 of issues that we wish to have the inquiry consider.
8 It is not our intention to debate those issues at
9 this time but rather to ensure that the Commission
10 makes provision for their thorough examination.

11 Specifically, the technical areas that
12 we wish to have the Commission consider are the
13 following:

14 First of all, we would like to see
15 attention given to the somatic and genetic biological
16 effects of radiation emissions from nuclear power
17 plants.

18 Secondly, we wish to express some
19 concerns about the technical questions of long term
20 waste storage in connection with that process. We
21 are also concerned that the Commission give some
22 consideration to the moral questions of long term
23 waste storage and the commitments in future society.

24 We would like consideration given
25 to the thermal effects of nuclear power generation.



1.3

1 We would like to have consideration given to the
2 question of permissible radiation levels and the
3 emission from such power plants. We would like to
4 voice some concerns about the environmental effects
5 of heavy water production as it fits into the whole
6 questions of electric power planning. We think
7 there is merit in giving consideration to uranium
8 mining and the consequences for industrial health
9 hazards as it relates to electrical power planning
10 for the future nuclear power production. We
11 believe it is worth considering the fact that
12 uranium is, in itself, a non-renewable resource.
13 Finally, the question concerning nuclear technology
14 and the relationship with accidents and sabotage.

15 As a citizens' group, CANTDU is
16 prepared to speak extensively to these particular
17 issues.

18 It is also our belief that the
19 Commission should become extensively involved in
20 the moral and philosophical issues as well. CANTDU
21 considers that an examination of electric power
22 planning material would be incomplete without
23 thorough consideration of these three points:

24 First of all, in some respects,
25 simply the growth ethic; this does affect some of



1 our thinking. We think that their needs could be
2 a very thorough and unprecedented examination of
3 the benefits and risks associated with energy
4 production through nuclear power generating stations;
5 and finally, the question of committing countless
6 future generations to management and control of
7 what are, in our opinion, hazardous waste materials
8 produced in this process. We are prepared to speak
9 to these issues as well.

10 Our second purpose in appearing at
11 this time before your Commission is to present our
12 thoughts regarding the nature and conduct of the
13 Hearings themselves. It is significant that the
14 Government of Ontario has agreed to provide a
15 degree of funding for presentations prepared for
16 the Commission by various intervening groups. We
17 feel that it will provide a better balance between
18 the public and the professional groups from Ontario
19 Hydro.

20 CANTDU urges that the Hearings be
21 conducted in a manner that does not prohibit the
22 participation of intervenor groups because of the
23 strict legal formats that could possibly be
24 developed. We recognize that the Commission must
25 abide by the General Regulations of the Public



1 Inquiries Act, but we do have some fears that a
2 courtroom atmosphere, in the strictest sense, will
3 restrict public input. An example of this problem
4 would appear to be the conduct of the recent inquiry
5 into petroleum prices in Ontario, where it seemed
6 to be evident that none but experts could make
7 meaningful representations.

8 We are also concerned about the
9 manner in which groups such as ourselves might
10 monitor the Hearings as they develop. It is our
11 present understanding, however, that some sort of
12 regular newsletter might be published by the
13 Commission and circulated. We urge that this
14 approach be pursued.

15 Our final point is with regard to
16 the possibility of the Commission requiring "expert"
17 testimony as opposed to written documentation from
18 such "authority" sources. The direction taken by
19 the Commission in this matter will have a great
20 bearing on the expenses required by intervenor
21 groups such as ourselves and, of course, connected
22 with that the question of legal fees for counsel;
23 and we believe that this sort of double-sided
24 question merits very careful consideration.

25 Mr. Chairman, we are looking forward



6 1 to this inquiry. It has the potential for a thorough
2 analysis of electric power planning needs in Ontario.
3 CANTDU, I assure you, will work diligently to play
4 a meaningful role in this process.

5 THE CHAIRMAN: Thank you, very much.
6 I wonder if any of the Commissioners have any
7 points for clarification that they want to raise?

8 DR. STEVENSON: Just one, Mr.
9 Carroll. Your views on CANDU plants came across,
10 I believe, even in your discussion of some of the
11 preliminary matters you would like to see the
12 Commission discuss. Do you have a favourite
13 alternative or are you just concerned at this stage
14 with dealing with the pro's and con's of the Hydro
15 program?

16 MR. CARROLL: We believed that
17 the examination of the pro's and con's of the
18 CANDU Project and nuclear technology has not taken
19 place, and it must take place if we are going to
20 make plans for sensible electric power planning in
21 the future.

22 In terms of alternatives, we can
23 talk very broadly on two things. One of them is
24 energy conservation and the other is also forms of
25 energy production but I'm not prepared to talk about



1 those at this time.

2 DR. STEVENSON: We have heard some
3 of the learned professors at Western talk about
4 solar and biomass this afternoon. Thank you,
5 very much.

6 MME. SOLANGE PLOURDE-GAGNON: You
7 mentioned participation. Could you
8 elaborate on this subject?

9 MR. CARROLL: I think, very simply,
10 in order for society at large to have meaningful
11 input to a Royal Commission, there must be an
12 atmosphere that permits, in fact, encourages open
13 discussion, and I think in this type of situation
14 where you have a number of citizens' groups who are
15 going out of their regular routines in order to
16 participate in this sort of political process it
17 requires a certain amount of stamina, indulgence,
18 that is nullified by a legal atmosphere.

19 I think that it is probably the
20 first time that I know of that Ontario citizens
21 sort of had the opportunity to be as extensively
22 involved in this kind of decision making and one
23 thing, in our opinion, that would prevent public
24 input is a rigid atmosphere where witnesses and
25 participants are subject to what we could describe



1 as ruthless cross-examination and that sort of
2 routine.

3 We recognize the need for maintaining
4 some sort of formality but we also see that there
5 are limits to what the ordinary jokers are prepared
6 to contend with in such a situation.

7 THE CHAIRMAN: Thank you, very much,
8 Mr. Carroll, for your presentation.

9 The next speaker will be Bruce King.

10 MR. BRUCE KING: In growth of that
11 nature, the things that I am especially concerned
12 about are the environmental implications, more
13 generating and more transmission facilities and more
14 land, more agricultural land, more recreational
15 land, more waste being put into the atmosphere and
16 probably more pollution.

17 As well, there is the tremendous
18 economic impact that would result from a system
19 expansion of that scale, and I don't think the
20 people of Ontario are willing to accept either the
21 environmental or the economic cost of an expansion
22 of that scale.

23 This rapid growth also has major
24 planning implications, I believe. It doesn't leave
25 an option. We have to build stations here and here



1 and here. We can't consider what we want to do and
2 where. On the other hand, if we slow the growth
3 very significantly, then we will have a much, much
4 greater flexibility. We may be able to forego the
5 energy options which we find to be most objectionable.
6 We may be able to avoid using nuclear power if it
7 is shown to be unacceptable. This reduced growth
8 rate would buy time for the development of better
9 pollution control technologies and this growth rate
10 would also give us the time to find new energy
11 production technologies so we would not become
12 locked into the present state of the art in energy
13 generation.

14 These pressures for growth obviously
15 pose major problems for planning and I suspect they
16 pose major problems for the Commission. You feel
17 the pressures. There are a number of projects that
18 Hydro wants to bring along very quickly and you, I
19 suspect, don't have the flexibility to deal with the
20 projects that you would like to have.

21 With a slower growth rate perhaps
22 you could have the time to really consider these
23 issues and I think there are a number of ways that
24 the Commission could help create a breathing space,
25 help to postpone some of these decisions and give



1 us time to carefully examine the implications.

2 I would suggest there are five
3 suggestions there that the Commission should look
4 into, sort of a short run of lessening of growth
5 before getting into, perhaps, the fundamental issues.

6 Perhaps the Commission, in looking
7 through the whole issue of levels of reliability
8 that Hydro is aiming for, a loss of power no more
9 frequently than one day in every ten years, perhaps
10 one day in nine years or one day in eight years
11 would be an acceptable level and that minor shift
12 might give a breathing space.

13 As well, there is the examination
14 of current growth rates. My understanding was that
15 last year the growth rate of Hydro consumption was
16 extremely low. Hydro may have attributed it to a
17 mild winter but I'm sure there are many other
18 reasons. It is my understanding that the growth
19 rate again this year will also be quite small, but
20 this may as well give us a breathing space, the
21 time to postpone some of these decisions. They are
22 energy conservation measures that can be very
23 effective. We can look at how effective these are
24 at present and in the short-term future. Maybe they
25 also can give us some extra time and the Commission



1 can look at an analysis of the impact of the cost
2 increases which Hydro have projected, double the
3 Hydro costs in a matter of a few years.

4 I suspect there is a fairly
5 significant demand elasticity and if the Commission
6 examines that they may find that these cost increases
7 will moderate demand and that Hydro's projections
8 won't be met.

9 There is also the possibility of
10 power imports from the James Bay projects. Can
11 we guarantee this power so that we don't have to
12 press ahead on the issues without giving them full
13 consideration? Once the urgent issues are
14 resolved, or at least not really resolved but
15 temporarily put aside, then the Commission can get
16 into some of the real fundamental issues, I think,
17 on the whole question of costing. Should Hydro
18 charge full social and economic costs to the public
19 and should this reflect future costs, future growth,
20 paying for that growth out of current rates. In
21 this way people would be allowed to sort of signal
22 their future demands because they would know well
23 in advance what the costs would be.

24 You can look at the long range
25 policies to conserve electricity and some of the



1 major reorganizations of society that could take
2 place in order to conserve electricity. In one
3 area there is this fundamental issue that I think
4 the Commission should try to deal with which is
5 the whole question of net energy or energy cost
6 benefit analysis. This is an area where the
7 Commission could very fruitfully commission some
8 studies just to see what the benefits are of
9 various energy production methods.

10 Once you get into fundamental issues,
11 there is obviously the question of the whole form
12 of the Hydro generations. There is the size of
13 plants. Should you have a few large plants or
14 maybe small plants? Should they be located distant
15 from the major cities, on the north channel, or should
16 they be much closer to the major load centres, and,
17 you know, then have a careful examination of what
18 types of power plants would be most satisfactory,
19 and one other major topic can then ^{be} got into, after
20 dealing with the most urgent issue, the most pressing
21 issue, looking at a range of methods of minimizing
22 environmental impact of the Hydro production.

23 Just to conclude I would like to
24 say a few brief words about the format of the
25 Commission, and give some suggestions, as much as



1 many people would like to be able to continually
2 monitor the Hearings, have them throughout Ontario
3 very frequently, I think the only really successful
4 format would be to have the major body of Hearings
5 based in Toronto which is most accessible, has
6 the greatest accessibility, the greatest number of
7 people, the greatest number of Provincial
8 organizations based there, environmental groups,
9 consumer groups, agricultural groups, and in this
10 way you could have all the different interest groups
11 effectively represented there on an ongoing basis
12 because it is only if people have an opportunity
13 to become fully immersed in the issues will they
14 be able to, really be able to contribute to some
15 of the more complex issues.

16 One night stands in various towns
17 is essential but that isn't where the real
18 contribution, I think, is going to come.

19 I would just like to thank you for
20 the opportunity to present my views.

21 THE CHAIRMAN: Thank you, very much,
22 Mr. King. There is just one point you raised that
23 I would like to comment on because there may be a
24 slight misunderstanding here. When you mention
25 that Ontario Hydro plans call for a 7 per cent per



1 annum increase in demand as in the past, that isn't
2 strictly true. In their report, 556 SP and then
3 later in their preliminary submission to the
4 Commission, they stated very specifically, I can't
5 remember the page number, but they were not
6 submitting a plan but they were submitting a planning
7 concept with a few alternatives as examples, and
8 they took, for instance, 10 per cent per annum, 7
9 per cent per annum and 4 per cent per annum over
10 the period of the decade, 1983 to 1993, so I think
11 perhaps it is a little bit unfair at this stage
12 to say that they have a plan.

13 MR. KING: I think it is fair to
14 say that they favour the 7 per cent option, however
15 that that was the most reasonable.

16 THE CHAIRMAN: That may be, but
17 of course we won't comment on that but it is stated
18 quite specifically and this is available, of course,
19 to everybody that wants it.

20 MR. McCAGUE: That was a very
21 interesting presentation, Mr. King. Towards the
22 end you made comment with respect to the format,
23 but in your earlier statement made reference to an
24 inquiry in which had participated and mentioned
25 roadblocks in the format. This interests us very



1 much. Can you expand on that?

2 MR. KING: Essentially the road-
3 blocks were just the area of responsibility or the
4 issue that Doctor Solandt was charged with inquiring
5 about in these issues all had broader implications
6 but you could not deal with those. You could not
7 bring those in in that he was charged with finding
8 a route from point A to point B. People continually
9 wanted to ask were point A and point B the places
10 that should be connected in the first place, but
11 that Commission was not the place to mention that.
12 I think this Commission is the place. Where do we
13 want A and where do we want B?

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1 MME. PLOURDE-GAGNON: I have a very
2 simple but maybe practical question to ask you.
3 Since five or six years, the environment program at
4 the educational level at school was terminated, if
5 I consider the awareness of my children in this
6 matter. On the same thing, do you have any
7 suggestions concerning an educational program on
8 energy problems in conservation for the schools from
9 kindergarten to high school? Do you think it is
10 important?

11 MR. KING: It is not a topic which I
12 have had any great involvement with. I think it
13 is certainly possible to explain in various levels
14 the implications of choices that are available to
15 people but to kindergarten children they can
16 understand and you can explain very briefly what the
17 implications of turning a light on and off are. I
18 don't know quite how the Commission can relate to
19 that.

20 DR. STEVENSON: We have been asked to.
21 Bob Neil here last night told us that unless we
22 figured out some way to make sure that the educational
23 system in Ontario got plugged into this Commission
24 and the things that we did were disseminated, were
25 written in a style that students could understand,
we would be missing a really important opportunity.



2 1 Since he said that yesterday we have
2 been doing a lot of thinking about it and as an
3 expert in the field of environment I hope you will
4 help us to decide how best to deal with the
5 environmental implications of electric power in a
6 straightforward way without a lot of technical jargon
7 so that we can help raise the consciousness of people
8 in this area. I invite you to let us have your
9 thoughts in writing or some way before we are much
10 further along.

11 MR. COSTELLO: You have covered a
12 great many points here all of which are inter-related.
13 Environmental problems as you know exist in a
14 generation at any time. In my lifetime, we have built
15 quite a few hydro power plants and these caused
16 problems too. But they are there. We should not
17 think they are not. The James Bay project is not
18 environmentally free.

19 MR. KING: I'm well aware of that. I
20 am suggesting it is being felt. The damage has been
21 done. Why not use that power that has to be used
22 somewhere, use it here in order to reduce the
23 environmental impact in Canada?

24 MR. COSTELLO: These are things that
25 we should certainly be looking at. We should not be
building new things if we can buy it somewhere else,



1 obviously.

2 THE CHAIRMAN: The point you raised,
3 Mr. King, about format is a very essential issue
4 that we are extremely interested in and I hope that
5 all of you present this evening who have any ideas
6 in this regard will let us know and send them in
7 in writing or telephone them in, any way you like.

8 Just as a matter of interest your
9 suggestion that maybe there be regional meetings
10 concerned with local concerns around the province
11 and then maybe right after this lot perhaps then
12 Toronto where major debates might take place. This
13 is certainly one of the scenarios that the Commission
14 is considering, but we have to have much more input.
15 This idea came from - I forget where it came from -
16 but it did not come from us. You introduced an idea
17 which is similar. I hope people, all of you, will
18 help us, and it is a very central issue, how should
19 we best perform our job of getting public participation
20 and get the examination and re-examination of these
21 various points of view, the trade-offs so to speak,
22 so we are grateful to you for bringing up that
23 question.

24 MR. KING: I had actually one reason
25 why I suggested that which was my experience with the
Solandt Commission and I think everyone found the



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1 people who made the contributions were the people
2 who could be there on a on-going basis and keep up
3 with the issues.

4 THE CHAIRMAN: May I just refer to
5 Rob here who probably did not keep up with any of
6 this. In fact, nobody has kept up with anything we
7 have done and yet he came up yesterday with a very
8 significant contribution.

9 In other words, this is not an area
10 for the experts so much as what I refer to as the
11 ordinary folk like you and me and we. This I think
12 is very, very important, that very often the key
13 idea emerges where it is least expected and that I
14 think is perhaps why we will cover the province with
15 our main inquiry.

16 Thank you very much.

17 Is Mr. Peterson here? Good. Mr.
18 Peterson, is there any chance we could cut you down
19 to 7 or 8 minutes. It has been drawn to my
20 attention that we have perhaps three more submissions
21 this evening and at all cost all these people are
22 just raring to go, so to speak, so if you could, -
23 don't, if it is inconvenient.

24 MR.DAVID PETERSON: I will do my very
25 best. I apologize for being late. The House was
sitting this evening and we came in a terrible hurry



5 1 from Toronto and we probably consumed more energy
2 than we should have in the process, so I apologize
3 for that too.

4 I had left a brief with you. It is
5 too lengthy for me to read. I would just like to
6 touch on several points which concern us very, very
7 deeply.

8 We support very much the kind of work
9 that you are doing and the task you are undertaking
10 and you will have complete co-operation from us and
11 I think it is a marvellous thing. The tragedy is
12 that it has never happened before. The tragedy is
13 that your period of planning, under the Public
14 Inquiries Act for a period of 10 years and beyond,
15 whatever that means, I think this on-going dialogue
16 should be maintained.

17 There is no question in our minds that
18 they have chosen the right people to be on this
19 Commission but Hydro has not been as responsive as
20 they should have been to the needs of people of Ontario.

21 Hydro is in a very, very curious
22 position with respect to jurisdiction. It is a very,
23 very difficult thing to determine who is responsible
24 for Hydro. We feel very clearly that Hydro has to be
25 brought under governmental jurisdiction so that the
government is clearly responsible for this very, very



1 complex issue, the environmental economic sociological
2 planning. It is in the days of very expensive
3 energy, given the fact that energy is fundamental to
4 every aspect of our human existence, particularly in
5 a province like Ontario; then it is fundamental in
6 our assessment that this be a political responsibility,
7 not the responsibility of the Board of technical
8 people to make the kind of decisions that affect all
9 of our lives.

10 It has been very, very interesting to
11 look at the history of Hydro with respect to the
12 Ontario Government and no one questions, at least very
13 few people question Hydro's technical ability because
14 they have very skilled people. They have some of the
15 finest nuclear technology in the world, that is given,
16 but whether we want that in what amounts - and in
17 what amounts we want that knowledge, is clearly a
18 political decision, in our submission.

19 This very curious relationship with
20 government, in the last few weeks, last few months,
21 has resulted in a very expensive and very complicated
22 scenario with the Hydro requesting a certain rate
23 increase, then certain politicians saying it is
24 appalling then being cut back, then going to the
25 Ontario Energy Board for hearings; another rate is
struck; then it comes back to the legislature and is



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1 too hot to handle politically; now referred to an
2 all-party committee of legislature. We feel that
3 it is cumbersome and unreal and it should clearly
4 go back to the political responsibility where it
5 belongs.

6 I just commend to you, you have
7 probably seen it, but it is a book by Prof. Knells,
8 "Politics of Development", tracing the history of
9 Ontario Government's involvement in the resource
10 industry and in hydro in the early part of the
11 century and I would like just to read a small
12 passage from that:

13 "Ontario Hydro never became
14 a beachhead for an on-going critique
15 in industrial capitalism. Instead the
16 dangerous principles upon which it
17 rested remained locked up within the
18 confines of the Commission and the
19 Commission was allowed to remove
20 itself as far away from politics (but
21 not the Treasury) as possible.

22 This, it was argued, was
23 absolutely essential if the organization
24 were to be run in accordance with
25 proper business-like principles. Hydro
entered the politics only to escape
from it."



8
1 Our very, very strong recommendation
2 is that because of the social consequences it has
3 political responsibility and people like you should
4 be acting in a continuing way to maintain the
5 dialogue and to keep the studies going at all times
6 for Hydro.

7 There are three other points I would
8 just like to mention that we think are basically
9 wrong. According to the rate structure that has
10 been struck by Hydro, and they are very
11 consumption-orientated - they have not changed their
12 philosophy since time immemorial. They are concerned
13 with how to generate the most power. They are not
14 concerned with ways of saving power. It is
15 reflected in the rate structure. The more you use,
16 the less you pay. It seems to me in our assessment
17 this is the absolutely wrong approach to as scarce
18 a commodity as hydro-electric power has proven to
19 be. My recommendation to you sir, is that you
20 should go at great length into the rate structure;
21 that it will have very serious ramifications in
22 conservation and various other areas.

23 Another area we would like to deal
24 is with briefly, and this/all in the brief, and with
25 any luck we will be submitting further briefs to
your Commission, sir. We think that the numbers and



9
1 the figures and the extrapolations and the projections
2 done by Hydro are wrong. They have taken historical
3 growth rate and projected this onto the next 10, 20,
4 30 years. We feel that this is not the proper
5 approach. We also feel that their projections and
6 desires to have a 30% capacity over peak load is just
7 too expensive in the 1970's and 1980's when we can't
8 afford a lot of the luxuries we used to have in the
9 past. So we would question the figures. We would
10 say, again, this is in the brief, there are other
11 energy authorities and electrical authorities in the
12 world who are cutting down, who are living with less
13 figures, who are living with just a little less rate
14 of reliability in order to maintain that cheaper power.

15 Last, maybe the most important area
16 that I think that Hydro has failed in is in the
17 conservation area and the area of developing alternate
18 sources of power. Other authorities are spending
19 substantial amounts of money in those areas. We look
20 at the Ministry of Energy's estimates today and they
21 are sadly lacking. We think that the Hydro is sadly
22 lacking in making constructive approaches to
23 developing alternate sources of power and into
24 conservation.

25 Now, this has many ramifications, the
rate structures and many other things we think would



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1 be inducements to conservation.

2 But the social cost of an expansion
3 of the type contemplated by Hydro at this particular
4 time seems to me to be so great we should be looking
5 for ways to adjust our society to a lesser growth
6 rate.

7 To these very big challenges I give
8 you my very best wishes and I wish you good luck and
9 I think it is a marvellous thing you are doing and
10 thank you for allowing me to speak to your Commission
11 tonight.

12 THE CHAIRMAN: Thank you, Mr. Peterson
13 and thank you very much for keeping so strictly to
14 the reduced time. There is one thought I would like
15 to raise and see if you have any thoughts on this.
16 It is the question of reliability and the associated
17 service capacity required and supposing there was a
18 feeling from the people of Ontario that they were
19 prepared to risk a lower level of reliability which
20 would mean, or perhaps might mean, increased
21 probability of, say, brownouts and so on. My question
22 is, is there any way - in a sense this is a value
23 judgment - that one may say one has never sort of
24 got stuck in an elevator for a couple of hours or
25 something that maybe there is no problem.



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My question is how do you think we can assess what level of risk, if you like, what level of reliability that the public might accept?

MR. PETERSON: I think that is a very fair question. There are several things I would just like to say.

First of all, I would, if I was you, satisfy myself that figures about reliability are quite accurate. I'm not sure that they are. We have to this point in time seen only Hydro's figures. We haven't seen any independent figures. We have seen no governmental figures so I would make sure I was satisfied that what in fact propaganda said was correct.

Number two, I think there are analogies in the United States. We have been very fortunate in Canada because we have not - a lot of us have not personally faced discomforture or inconvenience because of the lack of fuel but people in the United States that have waited for eight hours to get gasoline for their cars have a very different conception of what conservation is and what they have to personally do and what their personal responsibilities are in an energy crisis which is only a phrase until you experience it.

My third point on that would be that



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1 you would have to lay out the alternatives.
2 Obviously, no one likes the inconvenience, but if the
3 inconvenience is ~~being~~ every man, woman and child
4 in the Province of Ontario working three weeks a
5 year just to pay the debt on the hydro alone, then
6 I would say probably if you presented that alternative
7 to the people of Ontario they would say, yes, I will
8 occasionally put up with being stuck in an elevator
9 or my lights going out, and I will buy a supply of
10 candles.

11 But the question, in my opinion, of
12 clearly delineating the alternatives and the economics
13 of this hydro situation are so close to being out
14 of control, Dr. Porter, that I think you have a very,
15 very great responsibility to do that. I will give
16 you an example of that. Last spring on the bond
17 market, the \$100 million Hydro issue was issued and
18 substantially disrupted private capital market. It
19 was very inflationary, it drove interest rates up
20 and when we are so short of capital in so many other
21 areas - hydro is just one small aspect of it. We
22 need huge capital amounts in the petrochemical
23 business, the gas business, and you have to put it in
24 that context too, I believe.

25 THE CHAIRMAN: Thank you.



13 1 DR. STEVENSON: I don't think we have
2 heard the last of Mr. Peterson. I don't think we
3 have to make sure we have all of his ideas tonight.
4 We will see him in Toronto, I am sure.

5 MR. PETERSON: I will look forward to
6 that.

7 MR. COSTELLO: --- interruptions in
8 Toronto ---

9 MR. PETERSON: You are right. There
10 are other aspects of that. There are far more
11 creative ways to charge for your energy than we are
12 doing now. As much as I hate to admit it, the new
13 Hydro buildings are a good example on that. Hydro
14 should be working to lower its peak rate, using
15 power at night time. We should be using power at
16 night to heat up tanks of water to heat your house
17 during the day. There are lots of ways. There are
18 meters on the market today that you can use to use
19 power in off-peak times.

20 So if we all make an effort, led by
21 Hydro, to spread the peak periods over 24 hours a
22 day rather than 2 or 3 peak hours of the day then
23 there are ways without substantial discomfort.

24 THE CHAIRMAN: Thank you once more.
25 Might I just say to demonstrate what we are all
thinking of, this is public participating and the



14 1 fact that you flown in from Toronto after a harrowing
2 day in the House I would say it sets an example to
3 many of us as to what is really meant by public
4 participation.

5 MR. PETERSON: That is because we
6 feel so strongly that what you are doing is correct;
7 and our very best wishes.

8 THE CHAIRMAN: Thank you very much.
9 The next speaker will be Mr. Philip
10 Durant.

11 MR. DURANT: Mr. Chairman, members of
12 the Commission. I'm certainly very pleased to have
13 this opportunity to present our views tonight. It
14 was mentioned this afternoon that I am here as
15 Chairman of the Bean Marketing Board. Our
16 Marketing Board will be making a formal presentation
17 at a later date so tonight I was asked to present a
18 brief on behalf of the Huron County Electrical Power
19 Plant Committee because I am an executive member of
20 that Committee.

21 This Committee was born in 1974 when
22 we heard that this electrical power plant was proposed
23 for Huron County.

24 I won't read the brief; I want to
25 point out some of our concerns that are mentioned in
the brief. As a farmer who was born and raised in



15 1 Huron County of course we are very concerned with
2 our heritage and many other concerns. I attended
3 the different sessions last night and this
4 afternoon and in one of the charts I noticed a
5 phrase "planning for development" and this scares
6 me very much because when you look at the past
7 history of what we have done in Ontario it is
8 that we have planned for development and we have
9 still not got a land use policy and this has been
10 very costly to Canadians.

11 I feel that possibly this is the
12 direction that we should be working in, developing
13 a comprehensive land use policy and then plan for
14 development.

15 In planning for development I feel
16 that one of our major interests should be to make
17 sure that we don't pollute our environment. We
18 know that in Huron County if this plant was built
19 many of the crops that we produce are very
20 susceptible to air pollution. The Beans, the
21 organization that I represent is one of the most
22 susceptible.

23 Our Research Department tell us that
24 eight parts for a hundred million for a period of
25 6 hours has a very severe effect on the yield and
damages the crops very severely, so it is quite



possible that if you allow this plant to be built the population increase in the community, the increased services, homes, automobiles, more pollution, it is quite possible that we will reach a level where we will jeopardize our whole industry; where it will put us in a non-competitive position if you realize that even if the crops, the yield is cut by 15% it could very well put us in a non-competitive position on the world market.

We have one of the most efficient bean industries in the world at the present time. Our production has doubled the past seven years. We are now bringing in many millions of dollars into Canada, helping with our total economy, certainly very needed at this time, if you look at our balance of payments.

The air pollution, our Research Department tells us that the production in Kent County has dropped by about 80% the past 8 or 10 years because of the fact that they could no longer compete because of the lower yields. Not too many years ago Kent County was producing 40% of the crop and now they are down to 31% of the total crop.

Another one of our concerns is the fact that there seems to be a very great lack of communication between different government departments. Whenever we heard that this plant was being proposed



17 1 for Huron County we had a meeting with our Department
2 2 of Agriculture, Environment, and officials for Ontario
3 3 Hydro. We found that the Ministry of Agriculture
4 4 and Food had not been contacted so they did not know
5 5 that there was a plant that had been proposed for our
6 6 County.

7 We find this very shocking. We realize
8 8 that in our country we have been able to produce an
9 9 abundance of food and consumers, it was mentioned
10 10 before, because they are able to buy electricity and
11 11 gasoline. Possibly they don't realize the value of
12 12 being able to buy these commodities and I would
13 13 suggest to you that food is one of the most important
14 14 commodities that we have.

15 I don't want to take up any more of
16 16 your time. We at the Marketing Board will be
17 17 presenting our views at a later date and you have the
18 18 brief presented by the Power Plant Committee of Huron
19 19 County and many figures that I believe you will find
20 20 very interesting; and I feel that it will be very
21 21 costly to all consumers if we don't have rational
22 22 planning for the future.

23 THE CHAIRMAN: Thank you, Mr. Durant.

24 MR. McCAGUE: Mr. Durant, you have
25 25 raised the point of damage, particularly to the bean
crop. The leaf of the bean is particularly



18 1 susceptible to damage. Are you relating this
2 damage to ozone contamination?

3 MR. DURANT: Yes.

4 MR. McCAGUE: Would you anticipate that
5 your organization might proceed with research in
6 connection with this kind of damage?

7 MR. DURANT: Yes. We do work very
8 closely with both the Canada Department of
9 Agriculture and the Ontario Ministry of Agriculture
10 and Food in research; and the information that we
11 have from our Research Department; the information
12 that we have been able to obtain from the Michigan
13 Department of Agriculture states very clearly that
14 ozone causes bronzing that creates very severe
15 damage to our plants.

16 Beans are not the only crops that are
17 affected by ozone or air pollution. Corn, alfalfa,
18 tomatoes, many other crops, although it seems that
19 high protein plants seem to be more susceptible to
20 air pollution.

21 You know, in the world today we are
22 told that even though we have sufficient quantity of
23 food we do suffer from lack of protein, so it is very
24 important that we do not lose the capability of
25 producing these very important products.

MR. McCAGUE: An earlier presentation,



1 Bill, made reference to the format of the formal
2 hearings and wondered if they might be centred in
3 Toronto. Do you have any comment on that?

4 MR. DURANT: Yes, indeed. I feel it
5 is most important that the hearings be held in the
6 community that will be affected by these different
7 projects and the public should have ample time for
8 participation.

9 THE CHAIRMAN: Thank you very much.
10 We will be hearing from you on and on, I am quite
11 sure.

12 MR. DURANT: Yes.

13 THE CHAIRMAN: Mr. Walpur.

14 MR. WALPUR: Mr. Chairman, members of
15 the Commission, I represent Huron County of
16 Agriculture and I speak on behalf of the Huron County
17 Federation of Agriculture and express our fears that
18 a hydro plant in the area could have a detrimental
19 effect on agriculture.

20 What benefit does Hydro foresee
21 in establishing in an agricultural area? If there
22 are any advantages, then they must outweigh the
23 possibility of losing much of our agricultural
24 production. Southwestern Ontario has some of the
25 most fertile land and is situated in the most
favourable climatic area in Canada for growing crops,



1 many of which are exported.

2 The Federation of Agriculture
3 represents many commodity groups, some of which will
4 be presenting other briefs here, so I will not give
5 production value estimates.

6 If some of these commodities are
7 destroyed or limited production exists because of
8 pollution caused either directly or indirectly by
9 the establishment of a hydro plant, will these
10 farmers be compensated by Ontario Hydro for their
11 losses, and will the benefits outweigh the value of
12 the lost produce?

13 Thank you very much, Mr. Chairman.

14 THE CHAIRMAN: Thank you very much,
15 Mr. Walpur.

16 MR. McCAGUE: Mr. Walpur, I suppose
17 in classes of land Huron County and Middlesex County
18 would be two of the highest in the province. Middlesex,
19 Class 1 and 2 land, runs over 75% of the total.

20 Now this is an amazing figure because
21 the percentage in the province I think is about 40%,
22 but this is an indication of your concern and the
23 value of the land represented in Huron County, and
24 Middlesex, too.

25 This afternoon we had a presentation
from a gentleman representing an interest group in



21 1 Western Ontario. He is a resident of London but he
2 indicated broad interest in the rural section. Do you
3 expect that the Federation of Agriculture in Huron
4 probably with the Bean Board and probably with taking
5 in a broader scope might enter into a co-operative
6 effort in your various researches and in your
7 presentation and so on, taking into account the
8 funding?

9 MR. WALPUR: Well, yes, we do that to
10 some extent now. The Bean Board and other commodity
11 organizations are members of the Federation of
12 Agriculture. Not all of the commodity organizations
13 but quite a number of farm commodity organizations
14 are affiliated with the Federation of Agriculture,
15 and we do work together.

16 That is why I did not present any
17 figures from any of the commodity groups because I
18 felt it was their concern, and I was just speaking on
19 behalf of all commodity organizations.

20 DR. STEVENSON: George, I think you
21 are making specific reference to Prof. Sullivan and
22 his study group at Western. I'm not sure, Mr. Walpur,
23 whether you were here this afternoon when he made his
24 presentation but Prof. Sullivan was making the point
25 that he and his group of colleagues were attempting
to study land use planning, societal planning in the



22

1 whole of Southwestern Ontario and to do it properly
2 he indicated they had to deal with agriculture,
3 urban, trade-offs, and conflicts; and it occurred to
4 both George McCague and I and I'm sure my colleagues,
5 to do that properly is going to mean that the
6 professors and the farmers are going to have to get
7 together, and that is what Mr. McCague is suggesting
8 to you.

9 THE CHAIRMAN: Thank you, and thank
10 you for keeping so well within the time limit.

11

12

13 ---GENERAL DISCUSSION FOLLOWED.

14

15 ---Whereupon the Meeting Adjourned.

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Government of
Ontario

THE ROYAL COMMISSION

ON

ELECTRIC POWER PLANNING

*Preliminary Meetings of the Royal
Commission on Electric Power Planning*

DATE: November 4, 1975 **TIME:** 2:00p.m.

LOCATION: Sudbury, Ontario

VOLUME NO: 2

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ROYAL COMMISSION

ON

ELECTRIC POWER PLANNING

Meeting held at the Palladium
Room, Holiday Inn, Sudbury,
Ontario, on the 4th day of
November, 1975 at 2:00 p.m.



MEMBERS OF THE COMMISSION:

DR . ARTHUR PORTER	CHAIRMAN
ROBERT E.E. COSTELLO, ESQ.	MEMBER
MME.SOLANGE PLOURDE-GAGNON	MEMBER

VOLUME 2



1 ---On Commencing at 2:00 p.m.

2 THE CHAIRMAN: (Introductory remarks)

3 MME.PLOURDE-GAGNON:(Translated from
4 French)

5 As we have announced in the papers
6 and the electronic press, the main object in these
7 preliminary meetings is to give an opportunity to the
8 groups in question and the organizations to become
9 familiar with our mandate and objectives and
10 implications of this Commission; to discuss with the
11 Commission the issues in question whether they are of
12 a general application or local application; and the
13 issues that the Commission should consider; to discuss
14 with the Commission the way in which this Inquiry
15 should be conducted; the procedures; the siting; the
16 places; and the dates of the public hearings; to
17 discuss with you the utility and the use of this
18 Inquiry in the public interest; to aid the public in
19 participating in the planification in this question
20 of all energy and to improve the quality of life in
21 Ontario, emphasizing the period from 1983 to 1993 and
22 beyond.

23 When this Commission was set up, the
24 Honourable Allan Grossman, the Provincial Secretary,
25 the Mining and Resources Department, declared that he
hoped that the object of these preliminary meetings
should be mainly of an educational nature and we should



1 always remember this very important aspect of our
2 mandate. The exposé presented by Dr. Porter is
3 actually made in this context. Educational process
4 includes an exchange of ideas on both sides and we
5 hope that the public will educate the Commission.

6 The manner in which we will proceed
7 is a very simple one. You will find an agenda, a
8 copy of it, in your kit and after these remarks we
9 will listen to the written submissions which have been
10 sent to us by individuals and by different groups.

11 Those who were here last night will
12 remember that Dr. Porter said in his presentation that
13 fire had been invented by a woman. But perhaps
14 because of that it may be easier for you to understand
15 that a woman can sit and preside on a Commission such
16 as this one.

17 THE CHAIRMAN: Thank you very much,
18 Solange.

19 I would just add a very few words
20 merely to say, again, public participation is our
21 first priority. Without it we could not certainly,
22 as I mentioned at the beginning, begin to tackle the
23 task of this immense scope and magnitude. I am sure
24 that each one of you will wish us good luck in our
25 endeavours and, on that note, perhaps we should move
to the first of the written submissions, but perhaps a



1 note on organization for a start:

2 I hope we will be able to break for
3 coffee at about a quarter past three, I think the
4 timing is, and then this will give us an opportunity
5 to perhaps meet with us and with each other and so on.
6 So without more adieu, I have listed, first on the list,
7 is the Manitoulin Association for Safe Power - Mr.
8 Frank Myers (nice to see you again, Frank).

9 MR. FRANK MEYERS: Thank you, Mr.
10 Chairman. I am representing the Association for
11 Safe Power on the Island. One of our concerns is
12 presenting our opinion on conservation and a specific
13 issue is the siting of a north shore plant which we
14 shall go into later.

15 I will read you part of the written
16 brief which explains what we are interested in.

17 The Manitoulin Association for Safe
18 Power was formed in response to the proposed siting
19 of a north shore generating station in the North
20 Channel area of Lake Huron. We are concerned with
21 present patterns of energy growth and consumption and
22 our objectives are to encourage power conservation,
23 to collect and share information regarding alterna-
24 tives to large scale fossil-fueled and nuclear powered
25 generators, and to encourage the government to enact



1 legislation that would be compatible with conservation
2 rather than the present situation where the demands
3 for more power dictate policy. Our priority is to
4 forestall any construction of fossil-fueled or
5 nuclear generators in our area.

6 We recognize that exponential growth
7 in energy consumption is leading to the insidious
8 erosion of our environment and lifestyle. Clima-
9 tologists are already questioning the global effects
10 of energy production. Increasing energy production
11 at 5% per year would in 200 years cause terrestrial
12 energy production to equal the energy received from
13 the sun. Long before this point (perhaps within 30-50
14 years) man will have to come to terms with the global
15 climatological limits to his production of energy.

16 "Mankind's options for avoiding catastrophe are
17 decreasing, while delays in implementing the options
18 are, quite literally, deadly." That such exponential
19 growth rates in the long term are unrealistic and
20 unacceptable was recognized by Task Force Hydro as
21 recently as 1972. The Task Force also noted, "It is
22 clear that generation and marketing of electric power
23 by Ontario Hydro in the next two decades cannot be
24 expected to be a straight line extension of the
25 practices and experience of the past. New strategies



1 and fresh approaches will be required." There seems
2 to be an inconsistency between what the government
3 is saying and what Hydro is doing in development of
4 generating capacity. We therefore recommend that this
5 inconsistency be resolved immediately by making Ontario
6 Hydro more responsible to the government of Ontario
7 through implementation of the recommendations 1.1, 1.2,
8 and 1.3 of the Task Force Hydro Report Number 1.

9 Hydro's mandate, "Energy at Cost" is
10 no longer realistic for the future. It will promote
11 an emphasis upon an energy-intensive, consumer-
12 oriented industrial society rather than a shift to a
13 service-oriented economy. We require an energy
14 growth concept analogous to that of organic growth
15 and in contrast to that of undifferentiated (exponential)
16 growth. In this area of growth we have to replace
17 the axiom, "More is Better", with the more
18 conservative ethic, "Enough is Best".

19 We specifically question the need for
20 12,000 additional megawatts of generating capacity
21 for the North Eastern region as specified in the
22 proposals put forward by Ontario Hydro for the North
23 Channel energy centre. Hydro's projected demands
24 for electrical energy in Ontario indicate an increase
25 from the 1972 level of 12,970 megawatts to a 1991
demand of 46,000 megawatts. The North Channel plant



1 would then produce over one-third of the projected
2 increment. This increment can only mean support for
3 an exponential growth in demand in the North Eastern
4 Region, or a planned program of exporting the
5 surplus energy to another area.

6 A major energy centre, fossil-fueled
7 or nuclear, sited in this area will entail trade-offs
8 in aesthetic, environmental, and socio-economic
9 benefits. How do you evaluate the deterioration of
10 the aesthetic features of the environment? Who wants
11 to look at transmission corridors instead of birch
12 and maple forests? Hydro states that nuclear energy
13 is less expensive than energy derived from other
14 sources, but the price of a nuclear kilowatt does
15 not include components for radiation hazard, nuclear
16 accidents, and the moral obligation to future
17 generations to guard the deadly stockpiles of nuclear
18 waste. Since we do not know the long-term effects of
19 waste heat disposal and continuous input of radio-
20 active materials into the environment, we cannot
21 calculate the true cost of the energy we are using
22 today. The costs associated with a fossil-fueled
23 plant would be at least as great as those of a
24 nuclear plant. Should the plant be fossil-fueled
25 the additional atmospheric loading of sulphur dioxide
would place an intolerable burden on the poorly



1 buffered waters of the Pre-Cambrian shield north and
2 east of the generators. The present state of
3 acidification of the La Cloche Mountain lakes bears
4 grim testimony to the folly of thoughtless industrial
5 development in the Sudbury basin.

6 Nevertheless, reactor experience to
7 date has not provided data capable of predicting
8 biologically-significant accident probabilities or
9 of supporting any conclusion that such accidents are
10 any less likely to occur than other already observed
11 natural or man-made disasters. We feel that, on a
12 matter in which inaccurate probability-assessment is
13 potentially of catastrophic import for large numbers
14 of human and non-human beings, further data are
15 mandatory before anyone can justify further
16 development.

17 Aside from the possible safety
18 problems and the more abstract problem of exponential
19 growth, to site a plant in the Manitoulin district
20 would impose overwhelming stresses upon existing
21 medical, educational, recreational, and housing
22 facilities that are currently serving a District
23 population that has been numerically stable for over
24 two generations.

25 The Manitoulin District population is
approximately 12,000, adding onto this the population



1 of the Espanola area (which is the only other area
2 readily accessible to the La Cloche site), we arrive
3 at a present total population of roughly 20,000
4 people. We believe it is a conservative estimate
5 that during peak construction this figure could be
6 expected to double.

7 No amount of planning and subsidies
8 by the provincial government and Ontario Hydro could
9 conceivably prevent a large scale disruption of the
10 existing socio-economic structures. We don't want to
11 sacrifice the quality of our environment and
12 lifestyle to support the waste and unorganized growth
13 of the present economic system.

14 In the past Hydro has advertised to
15 increase the demand for its product. We feel that
16 Hydro has both the capability and the responsibility
17 to advertise and teach energy conservation to reduce
18 demand for its product to a level approximating the
19 real energy needs of a service-oriented minimal-growth
20 society.

21 Thank you.

22 THE CHAIRMAN: Thank you, Frank. I'm
23 awfully sorry I had you standing up there. Of course
24 you should have been sitting here.

25 Do you mind, in case my colleagues and
perhaps Dr. Rosehart may have a few questions of



1 clarification?

2 Bob, have you any points of
3 clarification?

4 MR. COSTELLO: Dealing with the social
5 impact on the community, construction of a station of
6 this size that has been suggested, this impact will
7 occur wherever the station is built, assuming that it
8 is built at some point in time.

9 MR. MYERS: We realize that that is
10 the case if it is a populated area. I don't have a
11 mandate to suggest that you site the plant anywhere
12 else. But we don't know about the other areas and
13 we would not want to commit ourselves to some area
14 that we don't have any expertise in; but there
15 obviously are some areas that are not as heavily
16 populated as ours and their economic and social
17 systems have not been in existence for as long, or
18 they are a different type. The Blind River area,
19 due to the result of the Elliott Lake boom is geared
20 to that kind of economic influx. In fact, they might
21 even need it. I understand Mayor Venturi in that
22 area is very eager to have the station located there.
23 So I don't feel that we have to be responsible for
24 feeling that we are going to push the bad parts of this
25 siting onto some other areas. Some areas want it; and
some areas are not even populated.



1 MR. COSTELLO: I happen to have a
2 cottage about 50 miles from Blind River, but I have
3 no firm opinions at this point in time. I think you
4 have presented your facts very well. There are trade-
5 offs, as you know, and at this point in time we don't
6 see, in the immediate future, any technology that is
7 going to replace fossil-fuel generation or nuclear
8 coming. So it isn't around the corner and construction
9 times are of such a long duration now, with seven years
10 to build a plant and maybe ten years to get it
11 started from the ground up.

12 MR. MYERS: We are not trying to
13 suggest that.

14 MR. COSTELLO: Have you any other
15 suggestive alternatives for generation? We don't
16 know of any. We are searching, really.

17 MR. MYERS: Going along with the
18 Club of Rome and the Ford Foundation report, there is
19 a lot of feeling that by streamlining and making our
20 present system more efficient and by restructuring the
21 economic sector to more service-orientated rather than
22 heavy industry and consumer oriented that the energy
23 saving could be directed towards the resultant
24 projects that would be necessary for a technical fix
25 or zero energy growth scenario, i.e. massive urban
concentration to alleviate the commuter problem;



1 resultant car traffic and waste of gasoline;
2 restructuring the whole way we live in relation to
3 our work and the distances that we have to travel.
4 This can be improved upon.

5 I'm suggesting that we don't have to
6 offer solar heat or cosmic radiation as an alternative.
7 I think we can streamline our use of fossil fuel for
8 now and if we have to develop another area, maybe that
9 is what nuclear or other heavy industry should be going
10 to. Maybe that is the direction that our heavy
11 industry should be taking to research alternatives
12 rather than creating more consumer products.

13 There are also cases of legislation
14 where just the very fact of legislation can change
15 the demand. Already existing transport systems are
16 subsidized or affected by different legislation and
17 this has a terrific effect on what transportation
18 system people choose such as rail versus tractor
19 trailer on highway transport with supposedly trains
20 coming off as 4% as efficient energy-wise as semi-
21 trailers on the highway, yet in the long run, people
22 have been switching over to semis whereas legislation
23 could tax the gasoline or tax the road transport to
24 the extent that the government would be compensated
25 for environmental and energy damage and you could put
incentives on railway transportation which is obviously



1 in a long-term going to be more beneficial.

2 THE CHAIRMAN: Thank you.

3 MME.PLOURDE-GAGNON: (Translated from
4 French)

5 Sir, you mentioned something that is
6 particularly interesting about the erosion of the
7 environment, our lifestyle. Could you elaborate a
8 little and tell us exactly what it would mean for you
9 and your group, a lifestyle that would prevent this
10 type of erosion?

11 MR. MYERS: Specifically, Manitoulin
12 has a very rural setting. Many of the people that I
13 know on the Island have moved there because of the
14 setting.

15 By the siting of a plant, there are
16 obvious effects. There will be different people in
17 the area and different needs to fullfil. There will
18 be problems with taxing, the additional services
19 required.

20 I am a newcomer to the Island in
21 recent history but the population of Manitoulin Island
22 has remained stable. It has been suggested that it
23 has been stable since about the 1920's, approximately
24 14,000 people on the Island, and people who have
25 lived there, been born there, are used to a standard
of life and of community which would be severely
affected by the encouragement of a large group of



1 people. The whole community structure is based on
2 the seasonal flow and the agriculture and the tourist
3 economy and I'm sure these people want to see it stay
4 that way if possible.

5 Now, the main thing is, we are dealing
6 with trade-offs as Mr. Costello mentioned so what it
7 comes down to is the advantages we seek or the structure
8 that siting of the plant would support is not what our
9 group specifically would want to trade-off, those
10 things I mentioned.

11 THE CHAIRMAN: I have not been looking
12 very carefully at the program and I see in view of
13 the number of briefs that we should only have had ten
14 minutes each.

15 I have also a list here of people who
16 have written to us and I would like to read out their
17 names; but I don't believe they will be here to
18 present their submissions in person. Is that true?

19 MR. MYERS: They won't be getting here
20 until 5:30. They will be in line for tonight's
21 session.

22 THE CHAIRMAN: I see. I will perhaps
23 not read their names then.

24 I gather Mr. Burt-- I know he will not
25 be able to be with us this evening and perhaps if you
would like to give your submission now we would be



1 delighted to hear from you.

2 MR. MYERS: Thank you for your time.

3 MR. ED BURT: I'm not so sure that I
4 can sort this out and give you people some parts of it.
5 I actually planned to read it all. Would that be
6 satisfactory?

7 THE CHAIRMAN: If you could do it in
8 about 6 or 7 minutes.

9 MR. BURT: I will read fast.

10 THE CHAIRMAN: Good.

11 MR. BURT: My name is Ed Burt, and I
12 am a farmer from Manitoulin Island. I have lived on
13 Manitoulin Island most of my life, and have owned and
14 operated a mixed farm for twenty-five and a half
15 years.

16 This is a strange environment for me
17 but I came over here because I am concerned about
18 further development and the effect it will have on
19 the quality of life for our area and perhaps all of
20 Ontario.

21 Many of the things I am going to say
22 are my own thoughts but they are also the thoughts
23 of many other people that I have talked to in the
24 past few months.

25 First of all, let me say that we
have no "Maple Leaf Gardens" or "O'Keefe Theatre" near



1 where I live and so our recreation and entertainment
2 is the outdoors, the forests, lakes and streams that
3 we enjoy and incidentally we share with many others.

4 In the past few years the North Channel,
5 one of our best recreational areas, is being
6 threatened in several ways. In some areas near the
7 mouth of the Spanish River, the water that was once
8 clear, for many feet down, is the colour of tea. Some
9 of the fish should only be eaten occasionally and
10 others have a very offensive smell when they are being
11 cooked. This is likely a result of mercury and other
12 pollutants from the pulp mill at Espanola. Our
13 commercial fishermen tell me that the North Channel
14 has developed dead areas where no marine life seems to
15 live and living algae are being observed in larger
16 quantities every year.

17 We have a deep sea port where, without
18 proper policing or by accident, large quantities of
19 ballast water from polluted harbours around the world
20 could be dumped into the North Channel. When the
21 nuclear powered generating station was proposed for
22 the North Channel I heard the following comments from
23 my neighbours. Do we know enough about nuclear energy
24 to make it safe? What about an accident on such a
25 large body of water? New industries should not be



1 built on rivers, watersheds, or large lakes. If it
2 turns out to be a monster like "D.D.T" or worse, how
3 do you control it if it's built on a large waterway?
4 Can Mother Nature cleanse and keep up? Some people
5 I've talked to say it's not the way to go and we
6 don't want it.

7 My second thoughts are with regard to
8 the population of our area. For as long as I can
9 remember the population has been pretty stable. We
10 have learned to live with what we have and for the
11 most part are pretty content. Over the years I have
12 gained some understanding of the number of cattle I
13 can pasture in a given area without the stress factors
14 of lack of inadequate grass or parasites, or over-
15 crowding. I know, being a hunter, that a deer has to
16 have about one quarter of a square mile of bush to
17 have a good life, and a moose needs about a square
18 mile. I would like someone to take a crack at what a
19 person needs because we are eating, breathing,
20 drinking animals and so are subject to some of the
21 same laws.

22 I believe very strongly that if
23 Manitoulin Island ever has as many people as some
24 people think we should, there will be nothing there
25 for any of us.



1 I think a large influx of people to our
2 area would have devastating effects and when the
3 regular summer guests arrive we would have nothing to
4 offer them but a mess.

5 I also believe that we have mined
6 uranium in the North and that we keep towns alive for
7 all the wrong reasons. I don't think any municipality
8 or government have the right to destroy individual
9 initiative by creating jobs. Sometimes it's not
10 always for human need, but to shore up a little piece
11 of the economy. We need to let people try; and pick
12 them up if they fall. We have just as much of a
13 responsibility to generations not yet born as to
14 anyone else.

15 In Ontario in 1975 we are losing
16 twenty-six acres of prime farmland every hour in
17 housing, powerlines, pipelines, roads and industry.

18 It only takes very simple mathematics
19 to prove that if this trend continues we are on a
20 collision course as far as food production is
21 concerned in Ontario. Most of this farmland lost is
22 in Southern Ontario, but the total farmland that we
23 have left is of vital importance to Ontario people
24 and people around the world.

25 Anything we do to upset the balance of
nature with regard to food production will affect us



1 all.

2 We have already experienced crop
3 damage from pollutants from Sudbury's "pride and joy",
4 their super stack. I think it should be sawed off
5 about six feet from the ground and then put a lid on
6 it.

7 I listen to people talking about how
8 fast Ontario is growing and when I look at that, I
9 don't know, but I know how long it takes a spruce
10 tree to grow and I know also how long it takes to
11 develop an inch of top soil.

12 I know it takes a lot longer to make
13 water clean again than it did to make it brown.

14 I don't know anything about sulphur,
15 but I have seen grain crops die just before they were
16 ready to harvest.

17 Ozone gas is a mystery to me, but I
18 know what it will do to beans and pine trees.

19 I have never seen an area where
20 people couldn't live, but I have seen beaver dams
21 that were abandoned because the food supply was gone
22 and the area was so polluted that they couldn't live.
23 It's not a very pretty sight!

24 Accidental leakage of radioactive
25 substances were just words to me until I talked to a
man from Hiroshima six years ago and he told me a



1 little bit about the horrors of radiation.

2 I don't know how many people Ontario
3 should have, but I see the effects of stress on my
4 farm animals if I fail to provide them with proper
5 environment.

6 I believe we in Ontario should start
7 looking at our waste, our needs instead of our wants
8 and, maybe, what we would like to see Ontario look
9 like five hundred years from now.

10 I have letters here that people gave
11 me to bring today and they say a number of things;
12 zero growth, no nuclear powered generating station,
13 no more people, and I don't think they are being
14 selfish. They are just concerned about their quality
15 of life, their kids and generations not yet born.

16 Thank you.

17 THE CHAIRMAN: Thank you, Mr. Burt.

18 MR. COSTELLO: I think Mr. Burt has
19 said it very well.

20 MR. BURT: I have some letters here,
21 gentlemen, that some farmers have given me. I had
22 one man today met me on the road and he gave me a
23 letter. He had a farm in his family for 100 years.
24 I did not read it but it is here and I have some other
25 letters that some farmers gave me to bring over here



1 because they wanted their thoughts expressed.

2 Maybe I don't have much time but I
3 would like to say, the farm population on Manitoulin,
4 it is pretty hard to get an opinion out of them. They
5 have been there for a long time and they have had a
6 lot of things sort of pushed on them over the years
7 and they just sort of let it happen but there are
8 opinions if you want to get them and I have some here
9 and they wanted me to give them to you.

10 THE CHAIRMAN: Could we have them
11 right now?

12 MR. BURT: Certainly.

13 THE CHAIRMAN: Thank you very much.

14 MR. BURT: These are just a sample of
15 letters that some farmers gave to me. I have more and
16 I can get lots more.

17 THE CHAIRMAN: Ladies and gentlemen,
18 I won't read these letters but I can assure you that
19 they will be included in Mr. Burt's very excellent
20 submission.

21 Some of the names are on them. I was
22 going to read the names out in case some of you knew
23 them but maybe by the time I could it would perhaps
24 take up too much time and we are running a little
25 behind time so, do thank them when you see them and
say that these will go into your personal submission.



1 Thank you very much.

2 I think the next is Mr. Williams.

3 MR. R.T. WILLIAMS: Thank you, Mr.
4 Chairman. These comments are in two parts. The
5 first is a defence of the past to present planning
6 and the second is an idea for planning in the future.

7 As the Manager of a medium size
8 Electric Utility, North Bay Hydro, I am able to see
9 and appreciate the need for long range planning for
10 electrical needs in the Province.

11 In North Bay Hydro our medium range
12 planning extends only about 5 years with more immediate
13 plans in some detail to 1 year ahead. This planning
14 horizon seems to be adequate for a utility of our
15 size since there is ample opportunity to monitor the
16 historical load growth and the immediate economic and
17 political aspects of the District. The lead time
18 required for a distribution station in our system is
19 about 12 months, and we feel that our 5-year planning
20 horizon is adequate, providing that someone at the
21 Provincial level is doing the planning beyond 5 years
22 that is necessary to bring new generation facilities
23 into service. We need and depend on this long range
24 planning by the Provincial bodies in order to be
25 assured of a continuous supply of power for our local
needs.



1 Continuity of service is so vital that
2 it takes the medium size utility full time to design
3 and maintain a system that will keep the traffic
4 lights on and the cash registers operating. We
5 recently had to tell a large Department Store that
6 the power would be shut off in 10 minutes to
7 extinguish a pole top fire. The store had no
8 windows, twelve cash registers and no auxiliary
9 parking lot lights.

10 Most utilities are not big enough to
11 employ their own experts to determine Provincial needs.
12 To avoid duplication of effort they must rely on the
13 Ontario Hydro planning.

14 Site Selection: I believe the siting
15 of generating stations and transmission corridors is
16 best left to the Engineers who are required to provide
17 alternate routes and sites and the economies of each
18 selection, and I use Engineers in the broad sense.

19 Public response must be solicited
20 from those people directly involved and objections
21 must be balanced against an assessed need for the
22 facility that benefits all of the people in Ontario.
23 The Engineering rationale must form the major part of
24 any of the decisions re the route and the cost. The
25 Engineers' report will give adequate consideration to
the economic aspect of a project and will probably in



1 the 1970's and 1980's pay some attention to the
2 social impact of a new facility.

3 However, this is not the expertise of
4 the Engineer and some input from society must be
5 solicited for the social effect of the project. It is
6 up to the Engineer to cost various alternate routes
7 and bring his best opinion to the report. But what
8 society wants and what society can pay for are two
9 different things.

10 The present to the future: A project
11 may be complete in its basic form or the public may
12 demand embellishments to suit the social whim. My
13 plea is that social embellishments must not be made
14 from a minority viewpoint and must not be made until
15 the total costs are considered.

16 The public should realize that the
17 rationale behind the Hydro decision-making is the
18 philosophy of "Power at Cost". Although there is no
19 profit motive with Hydro in Ontario, there is a
20 measurable opinion within utilities that they should
21 and do operate as economically as private industry.
22 Failure of proper planning of generating facilities
23 and corridors can be costly as well as a precipitator
24 of social unrest.

25 Electrical planning is presently
based on larger and larger centralized units with



1 larger and larger tie line facilities. Presumably
2 there is some cost benefit in large scale projects.
3 But as size increases, sophistication must follow to
4 provide security for the larger system. One
5 generating unit of 500,000 kw is almost 7 times the
6 demand load of the City of North Bay. When several
7 of these units are put in one building, our faith in
8 technology must be high. But the risks of disaster
9 are great. At the time I wrote this I meant by risks,
10 the risks of power failure rather than the risks of a
11 nuclear leak.

12 I believe that planning for the
13 future should consider a spattering of smaller
14 generating sites linked by smaller tie lines. To
15 accomplish this, an improved technology for smallness
16 must be developed and research funds should be made
17 available.

18 If we are to design for the future, let
19 it be a system of interlocking communities, as
20 complete as they can be made, where each can help his
21 adjacent neighbour. Planning would be focused on
22 compatibility of systems for mutual benefit. Each
23 person would have a part in shaping his community but
24 Provincial planners would be concerned with an
25 overview of the communities.

In summary, the direction of planning



1 cannot change abruptly, but our attention should
2 gradually turn from the beneficent approach by the
3 huge system to the participation of the individual
4 in his community about projects that benefit his
5 community and the adjacent neighbour.

6 THE CHAIRMAN: Thank you very much,
7 Mr. Williams.

8 A question I would like to ask for
9 clarification, when you talk about a spattering of
10 smaller generating sites, do you have in mind
11 different kinds of sites, you know, different modes
12 of generation?

13 MR. WILLIAMS: Probably yes, but when
14 you are looking into the future I think you don't,
15 you don't need to comprehend the future's technology
16 and I think that if we stop to try and understand the
17 technology of the future we will get bogged down in
18 the present. What I'm trying to do here is present
19 a future without complicating it with facts of today's
20 technology.

21 MME. PLOURDE-GAGNON: (Translated from
22 French)

23 A special point that attracted my
24 attention when you said that throughout this process
25 of embellishing a society one would still have to
consider the total cost of the embellishment of the



1 society, I think that this is a very realistic
2 viewpoint and I think that, Mr. Williams, everyone here
3 present will agree that the budget is a whole budget
4 and I know that each one of you participates to the
5 Provincial budget in the same way as the family
6 budget and I think it is very true that one must
7 consider the total cost whether it is Provincial or
8 family budget.

9 There are several items that come into
10 account, for instance, in the home there is food and
11 electricity and on the Provincial scale it is exactly
12 the same thing and one would have to think of the
13 whole picture if one wants to be realistic.

14 THE CHAIRMAN: Bob, do you have any
15 questions?

16 DR. ROSEHART: Just one minor point.
17 In your submission you talk about the risk of power
18 failure perhaps being a disaster. As you are aware,
19 one of the ways in which you can minimize the
20 expansion of generating stations in the province is to
21 cut back on the reserve capacity. When you cut back
22 on the reserve capacity, you run the risk of brown-outs
23 and power failures and this type of thing.

24 What would you think would be the
25 minimum acceptable sort of quality of service that the
residents of North Bay would live with?



1 MR. WILLIAMS: That is a difficult
2 question because it depends on who you are speaking to.
3 We have a few chemical industries that don't want a
4 2-minute interruption once a year or a 1-minute
5 interruption once a year. Continuity of service must
6 be defined, I think, in terms of the particular
7 customer.

8 In the case I mentioned where the food
9 store was involved it could have been chaos if the
10 people in the food store had not had some emergency
11 lighting in the store. We took floodlights up to
12 the entrance of this store to give the public some
13 illumination. The ordinary home, I think, could stand
14 less security of service than other parts of the
15 community and perhaps we should define the level of
16 service to different parts of the community. We
17 really have not done this too much.

18 THE CHAIRMAN: Thank you, Mr. Williams.
19 Perhaps we could move now to Mr. Carl Dow.

20 MR. CARL DOW: Just by way of
21 information I am publisher and editor of True North
22 Communications which is a monthly newspaper with page
23 circulation of 20,000. We are on the newstands from
24 North Bay to Sault Ste. Marie and with mail subscribers
25 throughout Northern Ontario and most of Canada, in
fact.



1 However, ladies and gentlemen, I'm
2 getting down to my text now - note the change in tone -
3 I thank you for this opportunity to place my views
4 before you on this most important subject; I am only
5 sorry that I have been allotted just ten minutes --
6 mainly because I tend to be long-winded, and usually,
7 I don't really warm up until about the third hour of
8 a delivery; however, now to the point.

9 Some, if not most, of that which is
10 to follow will probably be familiar to this Commission;
11 however, I introduce it to this session because I
12 wish to make it clear that True North endorses these
13 arguments and, unless otherwise convinced, will
14 campaign editorially for their support.

15 Canada, like the rest of the Western
16 industrialized world, faces an energy crisis of
17 staggering proportions. With the Organization of
18 Petroleum Exporting Countries (OPEC) demanding
19 ransom by escalating prices on the one hand, and the
20 multinational oil cartels manipulating and conniving
21 greedily on the other, Canadian industry and
22 consumers are caught in a squeeze that threatens to
23 stifle the economy, further feed the inflationary
24 spiral and increase the already swelling ranks of the
25 unemployed.

I am developing a context here; if you



1 bear with me, I will get to the point. Decisive
2 action must be taken immediately to protect the
3 consumer from price gouging, and to develop self-
4 sufficiency in energy supply. Only in this way can we
5 insulate our economy and the domestic consumer from
6 developments on the international level.

7 The problem is not that our country
8 suffers from a shortage of energy sources. Canada is
9 almost unique in that it has a plentiful and
10 diversified supply of resources for its energy and fuel
11 needs. There are few countries so well endowed with
12 coal, natural gas, oil uranium and electric power
13 derived from energy produced by water fall. (And I'll
14 be getting back to uranium shortly).

15 The problem is, that although Canada
16 is the only industrialized nation that has a good
17 operational, producible and potential supply of oil
18 and natural gas, we have never seriously bothered to
19 develop a distribution system so as to be self-
20 sufficient in all parts of the country, and not
21 dependent on outside sources.

22 In their sporadic groping for an
23 energy policy, neither the Federal Government, nor the
24 Government of Ontario, has attempted to articulate or
25 define a national or provincial interest, as distinct
from the interests of the oil industry.



1 The clamour for a Canadian oil price
2 in keeping with a world price level is a move by the
3 industry to pad its own profits. It has nothing to
4 do with the pressures of the marketplace. The
5 Federal government acquiesces meekly to the wishes of
6 the oil industry and bases its policies on the
7 industry's view of what is desirable, relying solely
8 on the industry's own research and assumptions. This
9 is a complete abandonment of the interests of the
10 Canadian people. The province also has abandoned its
11 duty to its people and has merely used the federal-
12 provincial talks as a forum for political maneuvering
13 and buck-passing.

14 Through its close control of
15 information on every technical and financial aspect of
16 its operations, the petroleum industry has been able
17 to hood-wink the Canadian public, and the decision-
18 makers, into believing that there is an oil shortage,
19 that the reserves are less than they really are, that
20 the costs of production are prohibitive, and that we
21 must pay exploration costs now on each barrel that
22 was explored in the distant past, and also on the one
23 that may be used in the future.

24 The recent Royal Commission on
25 Petroleum Products Pricing, failed miserably because
it relied almost exclusively on information, data and



1 calculations provided by the industry. Yet the
2 government's energy pricing policies are based on
3 this uncorroborated information .

4 The petroleum industry has a most
5 pervasive influence on all aspects of our life. It
6 accounts for 30 percent of the direct foreign
7 investment in our economy. In supplying energy and
8 fuel for manufacturing, transportation and heating, it
9 is the most powerful interest group in our country.

10 Since the Canadian oil industry is
11 largely foreign controlled, it makes its decisions on
12 the Canadian operation and adopts positions on costs
13 and pricing policies that are primarily in the
14 interests of, and benefit to, the home office.

15 The tragedy is that these decisions
16 and actions by the oil firms are accepted without
17 question by our governments and their agencies in
18 formulating energy policies and in allowing price
19 increases.

20 The major oil corporations, in
21 concert with OPEC, have created the atmosphere to
22 make the raising of oil and energy prices inevitable
23 and acceptable. In less than two years they have
24 raised the price of crude oil to \$11 from \$3 on the
25 international market. Now the move is to raise the
Canadian price to that level.



1 In its report "An Energy Policy for
2 Canada", the Federal Government produced two possible
3 producibility estimates for Canadian oil production.
4 Both estimates predicted an appreciable increase in
5 oil production by the year 2000. The projection
6 was that Canada could supply all our needs including
7 that of the Ottawa Valley when the Inter-provincial
8 pipeline is extended to Montreal. Yet during the
9 hearings of the National Energy Board a new set of
10 estimates, considerably reduced, was used as a rationale
11 for higher oil prices in Canada.

12 In both cases this statistical and
13 financial data was supplied by the oil industry and
14 accepted without question by the Energy Board and the
15 Ontario and Federal governments.

16 The oil companies, operating on a
17 premise of sheer greed, have no compunction in
18 altering their estimates and producing assumptions
19 that suit their purposes with the aim of increasing
20 prices and fattening their profits.

21 According to their own disclosure,
22 it cost the industry in Canada about 80 cents to
23 produce a barrel of oil in 1973. Even at the then
24 price of \$6.50 per barrel this assured a healthy
25 profit. With the new 10 percent increase in the
price of oil the corporations will really be riding



1 the gravy train.

2 It is in this context that I wish to
3 deal with the question of electric power planning: a
4 context in which we major corporations completely
5 dominating both the federal and provincial governments;
6 a context in which decisions are made not in the
7 interests of the people of Canada and/or Ontario but
8 in the interests of foreign-based organizations whose
9 sole interest is maximizing profit.

10 It is hardly any secret that the
11 James Bay power project is the result of a decision
12 to feed that mistake called New York City.

13 (Now don't misunderstand me, I am
14 not anti-American; as a matter of fact, I have great
15 respect for the achievements of the United States.
16 I speak as a militant Canadian, if you will, and as a
17 good neighbour. As a matter of fact, I even married
18 an American.)

19 It would be a serious mistake that
20 would place future generations of Canadians in an
21 uncomfortable (to say the least) situation, if we
22 were to continue to blindly support mistakes being
23 made south of the border.

24 Rather than find ways of supporting
25 these mistakes we should encourage the Americans to
correct them, even if that means simply dismantling



1 New York City. Why should Canadians remake our
2 topography or geography to satisfy needs that are
3 the result of a lack of foresight and predicated by
4 greed.

5 I remain totally unconvinced that
6 Canada's energy crisis necessitates that development
7 of nuclear power stations. Others will no doubt
8 speak against nuclear power stations in some detail,
9 and I will leave it to them.

10 I wish only to point out, for
11 emphasis, that nuclear power is an extremely dirty
12 and dangerous source of electricity. Plutonium 239,
13 for example, will take at least 800,000 years before
14 it will decay to the point where it would no longer
15 have to be isolated.

16 In 1973, W.M. Campbell, writing in
17 The Management of Radioactive By-products from a
18 Nuclear Power Plant, Atomic Energy Commission, page 4,
19 said, "At present ... we do not have sufficient long-
20 term experience with any disposal method to justify
21 its use and it has no place in the Canadian program."

22 In conclusion then, I contend that
23 the time is long past due when the Federal and
24 Provincial governments evolved a serious energy plan.
25 This would entail independent analysis of resources
and present and projected needs - needs based first



1 on the best interests of Canada and not on a Continental
2 energy scheme.

3 American-based corporations have had
4 a windfall in profits out of Canada during the past
5 100 years but especially during this 20th century.
6 We are under no obligation to support their present
7 and future profits, nor are we under any obligation
8 to continue supporting their mistakes.

9 As a good neighbour, as far as the
10 United States is concerned, we must challenge them
11 to correct their mistakes.

12 No country on earth has been a better
13 neighbour to the United States than Canada; if we
14 were to support them in a continuation of a policies
15 based on greed we would be letting them down - and
16 because of the power they wield in the owrld, we
17 would be betraying not only the people of Canada,
18 the people of the United States, but the people of
19 the world for many generations.

20 Nuclear power is a piecemeal reply to
21 our energy needs and to the energy needs of the
22 Americans.

23 What we need is, to repeat, planning
24 based on our needs first and foremost.

25 THE CHAIRMAN: Thank you, Mr. Dow. In
view of the time, and the extensive nature of your



1 brief, perhaps this material will be coming up later
2 during the main hearings. We have identified the
3 issues you have raised and I think that is the key
4 point and we thank you very much for the time and
5 trouble you have taken.

6 Mr. Butcher I think is next - Mr.
7 Butcher.

8 MR. C.E. BUTCHER: Mr. Chairman,
9 members of the Commission, when we first thought about
10 preparing a brief we decided that it would be called
11 a report because we wanted to deal with the facts of
12 school accommodation along the North Shore. By the
13 time it ended up, we did make a recommendation or two,
14 so possibly it should have been called a brief.

15 Our comments are based on the
16 assumption that a nuclear station is needed; that it
17 will be located in Northern Ontario; and that the
18 Hydro Commission is as interested as the Ministry of
19 Education, where I work, in keeping down costs of
20 school construction and providing adequate facilities.

21 It is my feeling, although it is
22 quite contrary to what we have heard this afternoon,
23 that there are certain positive benefits for any
24 development of this magnitude. Certainly there will
25 be an increase in job opportunity.

I think we all know, if we live in



1 this area, about the McFadden Lumber Company and we
2 know what has happened in Elliott Lake. A greater
3 population would certainly increase the present
4 housing situation along the North Shore, not only
5 would new housing come in but housing already there
6 would no doubt be improved. There would be an increase
7 of medical and health services; there would be an
8 expansion of shopping facilities and vibrant
9 communities from an increase in population would grow.

10 I believe along the North Shore, and
11 in our brief I believe we did mention the area of
12 Blind River, there appears to be a very positive
13 attitude to the construction of a nuclear station.

14 Education again, as I mentioned, is
15 what I know best and we are faced with a very serious
16 problem and that is the increasing student population.
17 You will notice two pages of the brief are devoted to
18 the student enrolment and so forth and I would like to
19 mention two points that we already mentioned there.

20 It is increasingly important that all
21 things being equal it would seem reasonable to me to
22 have a nuclear station or any type of power station
23 built where existing facilities are available.

24 Two places that I would like to draw
25 your attention to in the brief, on page 1 of housing
(North Shore) I mentioned three communities, Blind



1 River, Thessalon and Elliot Lake and very likely Iron
2 Bridge could also be mentioned there. It is a small
3 community between two of the larger places.

4 When we look at the table, the number
5 of schools, the enrolment, present enrolment 1975,
6 1980 projection, and the present pupil places that
7 are available now for Central Algoma, the prediction
8 is that by 1980 only 65.6 of the present accommodation
9 will be used. That is not quite as serious as it
10 seems because the Ministry bases its pupil places on
11 35 per classroom. When we are talking about new
12 construction and things that the school system is
13 operating in about 85% of capacity we do consider
14 this eligible, other factors being equal too for new
15 construction.

16 If you are interested, the North
17 Shore Board of Education 1980 projection is 62.9%
18 operation to capacity; the Espanola Board of Education
19 70.3%; the North Shore Roman Catholic Separate School
20 Board 67.1% and the Manitoulin Island Board of
21 Education 65.8%.

22 I think that probably in conclusion
23 I will just read the last paragraph on page 1.

24 Our recommendation does not take into
25 consideration transmission, cost factors, technical
details, environment problems and social impact of



1 such a development. These are problems for experts
2 but hopefully the final decision will bring maximum
3 benefit to whatever community is chosen.

4 Thank you.

5 THE CHAIRMAN: Thank you, Mr. Butcher.

6 MR. COSTELLO: I have a cottage at
7 Richard's Landing and I am quite interested in the
8 facts you have presented. I find it quite interesting.
9 I now understand why my taxes have gone up.

10 MR. BUTCHER: I don't see any view for
11 them going down, either.

12 THE CHAIRMAN: Is this decrease in
13 the student population due to decrease in birth rate
14 of, whatever it was, 5 or 6 years ago or is it due to
15 the immigration question?

16 MR. BUTCHER: I think it would be a
17 combination of all of those factors. If you are
18 interested, very quickly, in the numbers, the actual
19 number of students in elementary school, the separate
20 as well as the public, in 1974 was 1,347,000; in 1980
21 the predictions, which are within 1% in the past,
22 decrease of 102,417. After 1980 there is a rise. 1984
23 we are back up to 48,000 so 1980 seems to be sort of a
24 crucial factor; but the secondary school enrolment
25 are more serious than this.

At the present time, 1974, 589,000



1 students in secondary school and by 1984 there will be
2 479,000 which is quite a significant decrease, about
3 110,000. There is a swing back up at that point as
4 well.

5 DR. ROSEHART: Just one quick question.
6 Whereabouts do these students, after they pass through
7 your system, where do they end up? Do they end up
8 in this part of Ontario or do they go outside the
9 region? Do you have any handle on that?

10 MR. BUTCHER: Yes, I think so. I
11 think the dropout rate isn't that much more serious
12 than it is in Metropolitan Toronto. I think one of
13 the large Boards in Metro last year said they had a
14 dropout rate of something like 15%.

15 DR. ROSEHART: Right.

16 MR. BUTCHER: Whereas the provincial
17 average I think would be between 10% and 12%.

18 DR. ROSEHART: I did not really mean
19 that. I mean after they graduate and go on to post-
20 secondary education, where do they end up living in
21 Ontario?

22 MR. BUTCHER: I would say most of the
23 students leave for Sudbury and Metropolitan Toronto.

24 DR. ROSEHART: They go out of the area ?

25 MR. BUTCHER: Yes.



1 MR. COSTELLO: I had one more comment
2 to Mr. Butcher. I was quite impressed with the
3 facilities at the school. It was very highly
4 utilized at odd hours, as you know, many people taking
5 courses there that would never have an opportunity to
6 take those courses if those facilities were not there
7 so my remark about taxes is more in fun than anything
8 else.

9 MME.PLOURDE-GAGON: (Translated from
French)

10 You mention the decreasing birth rate
11 which is very true.

12 Do you think in 1985 for instance one
13 can see a recurrence of the problem somewhat similar
14 to what happened after the war, what we called in
15 Quebec at least, the revenge of the cribs. Is it
16 possible you could foresee between here and 1985 a
17 very pronounced decreased birth rate? Do you have any
18 indication at the present that in 1985 things may be
19 the reverse?

20 MR. BUTCHER: Yes I would say
21 definitely there is an upswing in population by 1985,
22 particularly in the elementary school which will carry
23 over another 6 or 7 years later in the secondary
24 schools. It is quite interesting to note, too, that
25 we use the present capacity of schools to endeavour to



1 find out what is practical to build for a School
2 Board but we also use the number of new housing, the
3 number of subdivisions and four years ago we were
4 using two pupils per house; now I think we are using
5 about one-half a pupil per house, which is another
6 interesting fact.

7 Apartment buildings having 40 units,
8 it is most difficult to get a good firm grip on the
9 numbers of students to expect in an apartment building.

10 MME.PLOURDE-GAGON: Merci.

11 THE CHAIRMAN: Thank you - Father
12 Bertrand.

13 REV.FATHER HECTOR L.BERTRAND,S.J.:

14 Mr. Chairman and Commissioners, living
15 in the top bilingual city in Canada, I will avail
16 myself of the privilege of presenting in my brief in
17 French.

18 However, should any of my friends in
19 the audience have a little difficulty I would be
20 ready to, with your permission, Mr. Chairman, to allow
21 them to have a little sleep - as long as they don't
22 snore.

23 (Translated from French)

24 Mr. Chairman, ladies and gentlemen.
25 I speak today in the name of the paper called



1 "Le Voyageur" which is a weekly paper, perhaps the
2 only paper of this nature in the whole Northern
3 Ontario region; and I'm going to speak in the name of
4 the French speaking people of our region.

5 I am first going to read the
6 introduction that I prepared. I will then summarize
7 the 8-page text and if anyone here wishes to have a
8 copy of the text it will be available to them, whether
9 it be to the papers or to the Commission.

10 In the past, the lucky families needed
11 the service of slaves that sometimes were very
12 numerous. Little by little slaves gave way to domestic
13 help and later on this domestic help had to stop their
14 work to give way to the electrical equipment.
15 Electrical equipment is very easy to operate. We plug
16 it into the wall and they work. Then you have to pay
17 the bill.

18 Let us try to imagine what manpower
19 represented before the electrical era: the heating of
20 a home, the washing, the cooking, by wood or by coal;
21 the bath of the lady or the gentleman of the house.
22 Of course we must eliminate radio and television, the
23 vacuum cleaner and the electric razor.

24 In fact, electricity is a very precious
25 element; of course it also creates various problems.
In the first "Contact" the Royal Commission of Electric



1 Power Planning confirms that the demand of electrical
2 power has increased by 7% in the past year due to
3 the great number of electrical appliances. The
4 multiplication of these appliances forces the public
5 organizations to increase the reserves. Energy is
6 produced by dynamics, more and more powerful machines
7 are being used every day and this means that we need
8 higher energy sources. Nuclear energy at the moment
9 supplies us with very expensive energy. Nuclear
10 buildings are so much exempt from radioactivity that
11 I think this point has not been emphasized enough or
12 clarified enough.

13 I would like to summarize in a few
14 words my text which, in fact, is quite long. I have
15 taken a very practical viewpoint. I am not a
16 specialist; I am not an expert; I am not even a
17 technician. I am a simple user of electricity and I
18 have addressed myself to families of the population in
19 the eight pages of the text and try to show them how
20 they can save money and how they can save energy. It
21 is already the homework of young people to show you
22 through very simple figures how we can work with the
23 government to save money to the family in question.
24 You will read these facts whenever you feel like it.

25 I will say once more that we are
using electrical appliances in an increasing fashion.



1 The cost is increasing. It seems to me impossible to
2 propose other solutions than those that are contained
3 in my very short exposé. One has to eliminate those
4 appliances which are almost not necessary and to
5 reduce the consumption in a very qualified way.

6 I think in these difficult times where
7 inflation makes us think about what we do we shall
8 have satisfaction of having to contribute to our
9 society by having to sacrifice very little of that
10 which is significant to us.

11 (In English)

12 Mr. Chairman, members of the
13 Commission, I want to thank you for your attention.
14 Rest assured that it was simply delightful for me to
15 be present here today. Thank you.

16 THE CHAIRMAN: Fr. Bertrand, we thank
17 you. It is very delightful to have you with us and
18 I hope we can have the full text of your submission
19 which obviously sounds extremely interesting and
20 touches on this very important topic of conservation,
21 which is very close to our work in this Commission.

22 Thank you very much.

23 MME. PLOURDE-GAGNON: (Translated from
24 French)

24 Thank you very much. You have just
25 made a premier by presenting a text in French in the
same way as the Commission has gone the first step by



1 asking for public participation.

2 When you talk about slaves and
3 compared it to the electrical appliances being a
4 slave of modern society I hear what you are saying is that
5 we are the slaves of technology. I like that very
6 much.

7 Do you think that there is an imbalance
8 between the quality of life and the price the people
9 are willing to pay?

10 REV. FR. BERTRAND: (Translated from
French)

11 Yes, I believe so.

12 MME. PLOURDE-GAGNON: (Translated from
13 French)

14 Be assured, Fr. Bertrand, that we
15 shall read your text from beginning to end; and I want
16 to say once more that I am not an expert either.

17 THE CHAIRMAN: Thank you again, very,
18 very much. I think we probably have time for just one
19 more submission before we have a short coffee-break
20 and it is Mr. Harrison. Is Mr. Harrison here?

21 Mr. Dave Stewart? These gentlemen
22 will presumably be here this evening.

23 Mr. Steve Yahney is the next I have
24 on this list.

25 MR. YAHNEY: The whole idea is supposed
to be quite informal so I hope we are learning something



1 this afternoon. I wrote down just a few comments
2 and I guess I can start by reading these here. I
3 gather from what I heard last night that you are not
4 allowed to ask questions --

5 THE CHAIRMAN: That is not so.

6 MR. YAHNEY: Well, not to expect an
7 answer, so the comments I would like to make are more
8 as my view as a citizen. I am here also as a
9 representative of the Sudbury District Labour Council
10 and the Sudbury District Committee on Pollution. The
11 whole idea of electric power planning as such, is as
12 new to me as to the people I represent. We have not
13 had the opportunity to thoroughly discuss the subject.
14 The notice was quite inadequate for a number of
15 reasons.

16 We realize we are in a major growth
17 area of the Province and one which uses large amounts
18 of industrial power. This Commission can perform a
19 very valuable task of providing basic information and
20 making the alternatives known.

21 A large portion of the solution is
22 conservation. We must adapt to our environment. We
23 must live with what we have; the earth's resources are
24 limited. Technology provides short-term solutions with
25 much higher costs. We must change our style of living
before we are forced to do so drastically.



1 Planning could change us from an
2 energy based society to more social awareness in
3 conservation with the least hardships. The problem is
4 that the buildings we live in, the cars that we drive,
5 the machinery we use, are all designed to be used with
6 the concept of energy being limitless and very cheap.

7 It is our decision to make and I
8 would consider it a tragedy if price alone dictates
9 our decision. On that basis, those most unable to
10 afford the cost are placed in a position of unfair
11 competition. If we do not voluntarily limit our
12 consumption of energy the government, on the other hand,
13 will be forced to do so to give us all our necessities.

14 Government control and rationing are
15 not the answer that we all wish for. We have been
16 brainwashed by the consumers' society where more and
17 biggest is better than less and sacrifice. People can
18 do with less. Often it would be to their advantage
19 and increase well-being to consume less.

20 But we are encouraged by business and
21 industry to buy more and more energy consuming goods
22 thus creating the demand for energy. It is time to
23 break this vicious cycle. It is time to halt this
24 energy monster which had its beginning at the first
25 waterfall and is steadily growing and demanding more.
We need more power just to keep the monster alive.



1 We do not want to give up our lands
2 and rivers to endless power dams; and our fields to a
3 network of power lines. There are many steps the
4 government could take to encourage conservation of
5 energy; education in the many ways of saving energy
6 even on a household level would be a worthwhile venture;
7 campaigns to increase the public's awareness of this
8 vital issue could be supported by taxes and grants.
9 Direct legislation might even be necessary in some
10 cases to conserve energy. Nuclear power is only a
11 very short term, shortsighted technological solution to
12 our energy problem. The benefits are far outweighed
13 by the costs - costs of construction I guess - and
14 your little lightbulb there that you showed us last
15 night, what did you say that a 60 Watt lightbulb needed
16 to have provided in capital cost - \$645?

17 THE CHAIRMAN: \$45 - but even so, just
18 for one bulb that costs 30 cents.

19 MR. YAHNEY: If a power plant must be
20 built, then let it be fossil. I think it is cheaper.
21 I believe it is cheaper, maybe we can have that
22 clarified. We have access to shipping and are closer
23 to Western Canada coal.

24 To become more effective I would
25 suggest that the Commission should spend time to
familiarize people with the role of the Commission.



1 This would involve your history, how it was formed, by
2 whom, and how you report back to the government. You
3 should also strive to give a history of hydro develop-
4 ment to the present; how our power consumption has
5 grown; and which sectors.

6 Basic information is needed for anyone
7 to discuss intelligently and make a decision regarding
8 this problem. Just actually what are the costs
9 involved? People don't know these. That fact you
10 mentioned about the 60 Watt lightbulb, that is
11 something we should consider.

12 I wish the Commission every success
13 and offer whatever co-operation and assistance we can
14 be to develop programs to encourage the wise use of
15 energy, on behalf of the Sudbury District Labour
16 Council and the Sudbury District Committee on
17 Pollution.

18 THE CHAIRMAN: Thank you very much,
19 Mr. Yahney.

20 On this issue of what you might regard
21 as the education component, this question came up in
22 one of our previous meetings and hopefully we will try
23 to do what we can to get material assembled. We are
24 hoping that maybe we might be able to commission five
25 or six people to undertake specific aspects of this,
just to write up and get together the sort of



1 information you have been asking for.

2 In other words, what you are saying,
3 and very justifiably, is that unless the public has
4 adequate information, how can the participant in the
5 decision-making process.

6 This we hope we will be able to do.
7 You can't do these things quickly but this Commission
8 of course expects to have two years in its entirety of
9 public meetings and hearings and then there will be a
10 bit of time after that to get all the information
11 together.

12 So within that time, hopefully,
13 within the next 5 or 6 months, we will have out some
14 of the information you are talking about.

15 Thank you for raising it again.

16 MR. YAHNEY: Just one further question.
17 There are interim measures that can be taken, the whole
18 question of the power industry, nationalization or
19 national power grid. How much of our power is being
20 exported. Why is there this big need to go ahead with
21 nuclear power plants with the very questionable
22 environmental practice involved?

23 THE CHAIRMAN: Those are very important
24 questions that I am quite sure we will be raising.

25 MR. YAHNEY: Do you have an answer to
that specific question?



1 THE CHAIRMAN: Not at this time.

2 DR. ROSEHART: I could perhaps clarify
3 that. I am no expert in the field, but there is only
4 a small amount of firm power exported from Ontario into
5 other jurisdictions. I believe it is something like
6 30 megawatts that is connected to International Falls,
7 Minnesota. That is a very small amount. There are
8 certain times during the year, I believe in the summer-
9 time, when there is surplus electrical energy available
10 in the system which is sold on an interruptible basis
11 to other jurisdictions. Basically however, I do
12 not believe Ontario Hydro is in the position of
13 exporting firm amounts of power but I might also say
14 that this question is very relevant to the Terms of
15 Reference that the Commission will be looking at,
16 energy export policies.

17 MR. YAHNEY: There is Manitoba on one
18 side who is exporting and so is Quebec on the other.

19 DR. ROSEHART: We get it the other way.
20 Ontario imports from Quebec 1200 megawatts of
21 electricity and from Manitoba I believe megawatts into
22 Ontario at the present time.

23 MR. YAHNEY: Thank you. You should
24 have been around last night, you could have helped
25 matters out a little bit.

DR. ROSEHART: Just that final point -



1 a lot of this information is available from Ontario
2 Hydro and there are lots of documents that are
3 available free of charge if you can arrange to pick
4 them up. I think the sort of thing Dr. Porter is
5 talking about perhaps will give wider circulation, but
6 this type of material is available.

7 MR. YAHNEY: Well, you are just
8 starting, I know, a few of the ads you have, insulating
9 and I saw the ad about the hot water pipes. You have
10 come a long way.

11 DR. ROSEHART: That is not us, that is
12 Hydro.

13 MR. YAHNEY: But I say the Commission
14 as such should get involved in this type of campaign,
15 the positive aspect of it.

16 MR. COSTELLO: That is one that hits
17 all of us. We all have hot water heaters. In the
18 area that I live in in Etobicoke these heaters are
19 disconnected during the peak period as one way of
20 knocking the peak down.

21 MR. YAHNEY: I think we have not even
22 started to conserve.

23 MR. COSTELLO: It is a big process of
24 education.

25 MR. YAHNEY: We have not started to
look at it at all.



1 THE CHAIRMAN: Mr. Yahney, you might
2 be interested, and I suppose quite a few of the
3 people here would know about this anyhow. It is this
4 very, very good little paperback put out by the
5 Federal Government, Energy Mines and Resources, and it
6 is called "One Hundred Ways to Save Energy and Money."

7 My wife has read this very diligently
8 and she assures me that she has come up with at least
9 ten of these quite practical as far as she can see
10 and this I think, it is going to be a gradual process,
11 this conservation ethic, but it is good to know that
12 this kind of information is available.

13 Bob Costello has just mentioned that
14 the preliminary submissions of Ontario Hydro to the
15 Commission is available in the local Hydro office to
16 anybody that wishes to have a copy; and certainly
17 some of the information we have been talking about is
18 embodied in that submission. So that I am sure
19 anybody that wants this can go and pick it up.

20 MR. YAHNEY: I hope you follow through
21 with direct media contact to the people on the many
22 ways that they can start conserving energy.

23 MR. COSTELLO: Get yourself on our
24 mailing list.

25 THE CHAIRMAN: Before I forget, in your
kits there is this form and we do ask those of you that



1 are interested in keeping in touch with what we are
2 doing, please to fill this in and then you will be
3 kept in touch.

4 I think at this time perhaps we should
5 break for coffee, and thank you very much.

6 Could we please try to be back here
7 not later than four because there are still quite a
8 lot of people to be heard from.

9
10 ---SHORT RECESS.

11 ---ON RESUMING.

12 THE CHAIRMAN: Ladies and gentlemen,
13 may we continue. I am going to invite at this time
14 Mayor Fabreau who I know has another appointment fairly
15 soon, so perhaps Mr. Mayor if you would like to come
16 and give us your presentation.

17 MAYOR FABREAU: Thank you very much
18 for your courtesy, Mr. Chairman. Members of the
19 Commission and ladies and gentlemen:

20 As a result of some of the comments
21 that I have heard here this afternoon, very enlightening
22 indeed, I am going to hasten to assure all of us here
23 that we have a brief that has already been circulated
24 and what I am about to read out is merely a summary.
25 We know that in summaries sometimes we are prone to
lose the real context of the presentation and the



1 possibility of criticism might arise.

2 However, let me assure the people who
3 are here this afternoon that this summary is intended
4 to highlight the items that are contained in the brief
5 and for that reason I beg the indulgence of any of
6 those who find criticism with it.

7 Mr. Chairman, we are pleased to have
8 this opportunity to present our preliminary thinking
9 on some of the areas of Ontario Hydro's long range
10 planning program which we understand to be within the
11 scope of the inquiry by the Royal Commission on
12 Electric Power Planning in Ontario.

13 In doing so we wish to emphasize that
14 these are only preliminary thoughts which could
15 conceivably change once we have had an opportunity to
16 study these different areas in detail, and here I
17 hasten to indicate to you that this is not an escape
18 clause but rather one that is intended to mean exactly
19 what it says.

20 With respect to the basic concept of
21 long range planning, we see an increasing demand for
22 electrical energy perhaps not at the present historical
23 growth rate of 7% but increasing nevertheless with no
24 reduction in the importance of supply security.

25 We see the need for Ontario Hydro to
respond to this increasing demand, using either coal



1 electric or nuclear electric generation. We do
2 believe that nuclear electric generation can and is
3 being made safe and will be the most economically
4 viable prime source of energy for Ontario within the
5 1983 to 1993 time frame and have the best long-term
6 availability and price-ability beyond 1993.

7 We see the large energy centre
8 approach is likely to be the most economical, subject
9 of course to site constraints. However, the
10 feasibility and economics of smaller nuclear energy
11 units located close to urban or industrial centres
12 and combined with the district heating operation
13 which will utilize the waste heat should be investigated.

14 We suggest that it is in the national
15 interest to continue to expand the electrical supply
16 system rather than initiate controls which would
17 transfer some of the rate growth of electrical energy
18 to oil and natural gas, at least until the domestic
19 supply situation with respect to oil and natural gas,
20 improves.

21 We take the position that the cost of
22 the expansion of the electric supply system in order
23 to conserve oil and natural gas should be supported by
24 federal funding. It might well prove to be that
25 federal funds invested in nuclear generation will
produce a better return in terms of useable energy



1 than those invested in Arctic oil exploration or
2 perhaps even the Oil Sands Development.

3 It is further our opinion that the
4 overriding principle in the siting of generating
5 stations and transmission corridors must continue to
6 be that the interests of the majority be served. It
7 is also our opinion that our society cannot afford to
8 place appearance high on the list of priorities when
9 the more aesthetic alternatives are considerably more
10 expensive.

11 The real value of the national income
12 has not reached the point where it is possible to pay
13 for the best of everything, regardless of cost. Our
14 observation is that the majority of the people here in
15 the North at least, desire the comfort and convenience
16 and pleasure that is provided through the consumption
17 of energy, particularly energy in the form of
18 electricity, and are prepared to accept the harmless
19 encroachment on the environment which are inherent in
20 the generation, transmission and distribution of
21 electrical energy at reasonable rates.

22 Mr. Chairman, I have come to that
23 conclusion through observation of the use of the motor
24 car in our Western society and especially here in
25 Northern Ontario and Northeastern Ontario and I wonder



1 if, in comparing that, if we would be prepared to
2 forego the non-aesthetic qualities of highways,
3 expressways, corridors of this type with the use of
4 the motor car. As a matter of fact, if we were able
5 to or would give consideration in foregoing all of
6 these things for aesthetic quality.

7 We support the need to conserve all
8 prime energy sources by elimination of waste and
9 extravagant use. We see several areas where greater
10 efficiency of utilization can be obtained particularly
11 in load management directed towards shifting peak load
12 to off-peak in order to obtain the efficient utilization
13 of existing generation, transmission and distribution
14 plant.

15 We also see a need for some form of
16 co-ordination between National and Provincial agencies
17 for developing and promoting improved energy
18 utilization technology. With respect to the overall
19 management of prime energy resources we see an urgent
20 need for a National Energy policy, and I repeat that,
21 as has been mentioned here a couple of times this
22 afternoon but apparently it does not seem to be getting
23 the attention that it deserves to get with the general
24 public, Mr. Chairman. I repeat, with respect to the
25 overall management of prime energy resources we see an



1 urgent need for a National Energy policy which will
2 provide a comprehensive definition of the role that
3 both solid coal and nuclear energy must play in
4 the National and Provincial energy scene in the next
5 25 years.

6 Such a definition will reflect the
7 future role of electrical energy and help indicate the
8 need for electrical system expansion since the most
9 convenient form of utilization and help indicate the
10 need for electrical system expansion since the most
11 convenient form of utilization of solid coal and
12 essentially the only form of utilization of nuclear
13 energy is electricity.

14 We see the wise management of primary
15 energy sources as including (a) conservation of all
16 energy sources from the point of view of waste and
17 extravagant use; (b) the improved efficiency of
18 utilization of all energy sources and (c) the greater
19 use of coal electric and nuclear electric energy as
20 an alternative to oil and natural gas at least until
21 such time as new, significant and excessible domestic
22 supplies of oil and natural gas are located and
23 developed.

24 With respect to the broader issue of
25 electric power planning we see a need for a significant
 reduction in the time frame required for the installation



1 of a generating station. We also see a need to speed
2 up the public participation process particularly with
3 respect to the location of transmission lines or
4 converting new generating stations to old centres.

5 Mr. Chairman, the cost of locked-in
6 generation can be phenomenal and I don't think I need
7 to impress upon your Commission the importance of this
8 particular statement. It is wonderful and it is
9 right in this modern age society of ours that we
10 should have participation on the part of the public
11 but I think that everybody should try to understand
12 that the use of this participation, participating
13 transition in our philosophy of life, can be very
14 expensive if not used wisely.

15 We see a very definite need for a
16 base load type of generating station to be located in
17 Northeastern Ontario and we see this need becoming
18 critical within the time frame that it will take to
19 complete this station, even if the final policy
20 approval were granted today.

21 The peak load in Northeastern Ontario
22 will be of the order of 1250 megawatts this winter,
23 barring the continuation of major and labour disputes,
24 and there are really no significant size run of the
25 river-type generating stations in Northeastern Ontario
capable of base load operation during normal water



1 conditions. Essentially all of the generating
2 stations in Northeastern Ontario are peaking plants..
3 We see a continuing high level of electric load growth
4 in Northern Ontario as a great emphasis is placed on
5 resource recovery and processing. Within the time
6 frame it will take to complete this generating station
7 the peak load in Northeastern Ontario could increase
8 to 2500 megawatts.

9 For the information of the public
10 here, Mr. Chairman, it is recognized that the
11 establishment of one of these stations will take
12 anything from 12 years from day one, so that means that,
13 in fact, we expect in Northeastern Ontario, as a result
14 of certain government strategies, that our load will
15 increase at the rate of around 10% rather than the
16 load average for the Province of Ontario being 7%.

17 This expected load level is above the
18 maximum total capacity of the present inter-connecting
19 transmission system and serious limitation of supply
20 could result in the event of an outage on one of the
21 EHV lines from the south or from the peaking plants on
22 the James Bay watershed.

23 Mr. Chairman, we urge prompt
24 consideration by your Commission with respect to the
25 need and priority of this generating station and its



1 interconnecting transmission line.

2 In this summary of the highlights of
3 the brief which we have prepared in response to your
4 invitation, Mr. Chairman, as I said it is our
5 intention to make a detailed study of several of
6 these areas in which we have a specific interest and
7 concern and we trust that we will have a subsequent
8 opportunity to present them to you.

9 Those are my comments, Mr. Chairman.

10 THE CHAIRMAN: Thank you very much,
11 Mr. Mayor.

12 Bob, do you have any questions?

13 MR. COSTELLO: I met Mr. Fabreau this
14 morning on the radio show.

15 MR. FABREAU: We cleared up all
16 problems this morning.

17 MR. COSTELLO: I wouldn't say that.
18 We have become acquainted.

19 THE CHAIRMAN: Just as an aside, over
20 the coffee break I was talking to Mr. Burt who made a
21 presentation previously and we discovered that he had
22 come across a fellow that came over to Canada the same
23 time I did and has now settled permanently on
24 Manitoulin Island, so we had a very nice visit between
25 us. It is rather interesting how these pathways cross.



1 I first met this guy in University in
2 1932.

3 MR. FABREAU: That means we do have
4 some nice people in this part of the country.

5 MME.PLOURDE-GAGNON: (Translated from
6 French)

7 There is a certain comment that I
8 would like to make. The Mayor talks about the
9 importance of public participation which would be very
10 expensive if it were not well used. I make the
11 analogy between the good and the useful utilization of
12 electric power.

13 MR. FABREAU: Sorry, this thing is not
14 working.

15 MME.PLOURDE-GAGNON: (Repeats) - I will
16 tell you after.

17 MR. FABREAU: Thank you very much. I
18 would rather talk to you later.

19 THE CHAIRMAN: Next on our list is
20 Mr. Wallace. Is Mr. Wallace here? If not, Mr. Proulx.
21 Mr. Don Belisle; Dr. Nolan; Mr. Paul Hale; Mr. Lloyd
22 Greenspoon; that is all on my list.

23 Is there any other member of the
24 audience with a brief, that I may not have on the
25 list here - Mr. Jim McGregor.

MR. MCGREGOR: Thank you, Mr. Chairman,
and members of the Commission.



1 My name is Jim McGregor. I am Chief
2 of the Whitefish River Indian Reserve. Our reserve
3 is located on Birch Island within five miles of the
4 proposed site on LaCloche Island. There are
5 approximately 250 people living and working on the
6 reserve. The quality of life on our reserve has
7 improved considerably over the past five years -
8 eighteen new homes have been built, water and
9 sanitation services have been installed and plans for
10 a recreational building are now under way. Thirty
11 students from the reserve are attending highschool in
12 Espanola and approximately ten students are in
13 attendance at universities and community colleges.
14 In the spring of this year a petition was circulated
15 throughout the reserve to find out if our people were
16 in favour of a generating station on LaCloche Island.
17 All members of the reserve signed the petition. Every
18 member was opposed to the project. After I received
19 the results of this petition, on behalf of my people,
20 I wrote letters to Ontario Hydro, The Department of
21 Indian Affairs in Ottawa, John Laine, our M.P.P. and
22 Maurice Foster, our federal M.P. informing them of
23 our opposition to this project. I also attended
24 meetings in Toronto with representatives of Ontario
25 Hydro and met with the Honourable Dennis Timbrell to
personally inform them of our opposition. Faced with



1 this, I am at a loss to understand why we continue to
2 be plagued by representatives from Ontario Hydro.

3 We are opposed to this project because
4 we are concerned with the preservation of our lands
5 and with the quality of life as it now exists on our
6 reserve. We do not want our future generations to be
7 handed lands which have been polluted and destroyed by
8 man. We want to give our children the land in the
9 same condition our forefathers gave it to us. Where
10 else can you go to find water as fresh and as clean
11 as it was a hundred years ago?

12 In order for us to effectively present
13 our thoughts and opposition to this project at future
14 hearings, we will require financial assistance to carry
15 out historical research and especially to hire experts
16 to study on our behalf the impact such a project
17 would have on our immediate environment.

18 We are asking our white brothers to
19 work carefully with the land -- to stop and think before
20 it is destroyed forever.

21 Thank you.

22 THE CHAIRMAN: Thank you, Mr. McGregor.

23 In respect of your wish to set up a
24 study you probably heard of the scheme for financing
25 groups such as your own and I hope very much that you
will forward a proposal in these lines to the Commission.



1 You did know of this, did you, Mr.
2 McGregor, about this possibility?

3 MR. MCGREGOR: Yes, I did hear wind
4 of it. I was not too sure.

5 THE CHAIRMAN: The details of the
6 existing present, sort of the way of approaching this
7 problem, is contained in the brochure and you have
8 got a copy of this, have you - one of the documents
9 in here relates to it.

10 MR. MCGREGOR: These brochures outside
11 the door here?

12 THE CHAIRMAN: That is right.

13
14 I would suggest maybe you take five or six or even a
15 few more back to your people. I'm sure they would be
16 interested.

17 The document that I am referring to is
18 called "Preliminary Statement on the Funding of Public
19 Interest Groups" and you will find it here.

20 MR. MCGREGOR: I will certainly pick
21 them up, Mr. Chairman, thank you.

22 THE CHAIRMAN: We are grateful to you
23 for coming and expressing your concern.

24 I think at this time unless there are
25 any other written submissions to be presented we will



1 hand over to , shall we say, the public at large for
2 an open discussion so that any one of you that now
3 wishes to make any verbal presentation we shall be
4 very delighted to have them.

5 I think this afternoon's session has
6 been extremely helpful and this is really what we
7 mean when we say public participation in action. This
8 is the name of the game and I hope long may it continue.

9 Is there anybody at this time that
10 would like to get up there and say a few words? It
11 doesn't matter how brief and how ill-prepared - when
12 you hear how ill-prepared I am in many ways I flounder
13 around. Please do give your name so that we can get
14 it on the record.

15 MR. TED DASH: Ted Dash, Sudbury Hydro -
16 just to get the ball rolling I think it was the first
17 presentation that was made this afternoon, the
18 participant suggested that the use of electricity was
19 not going to be - the demand was not going to be as
20 high as what some people were predicting.

21 I am suggesting that with the problem
22 of oil and the problem of gas getting enough reserve
23 that the swing is going to be definitely to electricity
24 and that we will need all the capacity that we can
25 possibly get. That is just a statement to get the



1 ball rolling.

9/ 2 MR. GEORGE SPANGLER: Mr. Chairman, my
3 name is George Spangler. I am an aquatic ecologist
4 and I'm totally unprepared to make a statement at the
5 moment and I was wondering what the format of this
6 evening's session would be.

7 THE CHAIRMAN: George, there will be
8 some written submissions of people that could not
9 attend this afternoon. Hopefully we are going to
10 have a group of highschool students from Manitoulin
11 Island for instance and I think a few of them will
12 have presentations so we will try and make the
13 introductory processes as short as possible because
14 our field workers tell us there could be 500 people
15 here tonight. I don't know. I certainly hope this
16 is achieved. If so, there will be as many people
17 here tonight as there have been at all the other
18 meetings put together, which would be quite an
19 achievement.

20 So why I say that is there will be I
21 suspect, 8 or 9 and so if you give them maybe ten
22 minutes that's about an hour and 20 minutes - although
23 we have only two hours on previous occasions we have
24 gone on until eleven, so if you have a presentation to
25 make please be prepared to do it this evening. We
welcome it very much.



1 MR. SPANGLER: Thank you.

2 MR. PARK: My name is Mike Park. I
3 have a question or two to ask. Has any consideration
4 been given to spelling out to the public just what the
5 effects of a zero growth would be on the average
6 person; what it means to their domestic life; what it
7 means to their working life and so on? What effect
8 would a 5% growth be and so on.

9 If these facts were made known, maybe
10 some people would not be quite so anxious to see zero
11 growth.

12 THE CHAIRMAN: I can't answer the
13 question, of course, at present largely on account of
14 the youth/ ^{of} this Commission, just being three months
15 old. Studies in this regard will almost certainly
16 be undertaken. They are difficult from many points of
17 view, as you can imagine, but hopefully and it
18 certainly won't be for at least a year, I would not
19 think, there will be alternative, shall we use this
20 word, scenarios available and, hopefully, we will be
21 able to go back to the public and say, is it this
22 sort of situation that you would like to see or this
23 or this or this; and I think that partly answers your
24 question.

25 In other words, in connection with the
demand forecasting procedures very clearly studies such



1 as you have outlined will have to be undertaken.

2 You see, it is the question of
3 reliability of supply which comes in here, reliability
4 itself is tied into surplus capacity and that of
5 course is tied into the numbers of generating stations
6 and the transmission corridors and transmission lines
7 required, so I can assure you that these will be on
8 hand.

9 Thank you for raising the point.

10 MR. FRANK MYERS: We have had to deal
11 with the problem as the Manitoulin Association for
12 Safe Power and its representatives that we don't know
13 the full implications of a zero energy growth. We are
14 not advocating that although we are not ~~re~~jecting it
15 either.

16 This ties into your statements, Dr.
17 Porter, that public participation needs a lot more
18 education and it is not just education. Some of this
19 data just is not available.

20 The Ford Foundation's Energy Report,
21 Volume 1, gets into some of the implications. The
22 second report "The Club of Rome" covers different
23 scenarios with some of their computer models to
24 predict what would be the grass roots effect, the
25 effects on every man's lifestyle, by the different
scenarios.



1 Myself, up until a while ago, I would
2 have assumed that zero energy growth would have had
3 disastrous effects on different areas of the economy
4 as well as different areas of the world; but by
5 reading a few of the most recent articles and
6 periodicals I believe or I hope it will be further
7 shown that inequities and world distribution of food
8 and housing and energies could still, and maybe even
9 only solve through the technical fix scenario
10 or the zero energy growth scenario.

11 This comes along, as a lot of people
12 have mentioned today, the need to conserve energy in
13 already existing structures without - the kind of moves
14 would not affect our lifestyle, making things more
15 efficient.

16 In other words, we have a benefit, a
17 plus to this side of energy by streamlining things and
18 these, even in a zero energy growth scenario, could be
19 used for growth.

20 You take the energy saved, you apply it
21 to modernization and to restructuring of transportation
22 systems, et cetera, and this excess energy will then
23 cover the inequities. Obviously, zero energy growth
24 cannot be advocated in its present form in any demand
25 situation. All that people can do is demand research
since the implications on worldwide transport of goods



1 and resources could be severely hampered by an
2 inopportune emphasis on zero energy growth.

3 THE CHAIRMAN: Thank you. That is Mr.
4 Frank Myer. I might just mention that the reports
5 he mentioned, the Ford Foundation one, Volume 1, and
6 I think Volume 2, and I believe there is an
7 abbreviated version of the Ford Foundation report in
8 paperback, that is available in the Commission library,
9 as also is the second report of the Club of Rome. The
10 first report, as most of you know, is the paperback
11 "The Limits to Growth" by Meadows and his collaborators.
12 The second one is by Messrs. Pestell and Marzarovic (sic).

13 This is also in the Commissions'
14 library.

15 Of course, we could not get too many
16 copies because of limited budget and so on but I can
17 assure you, and I suspect these books would be in
18 libraries, I'm fairly sure of this. They are significant
19 contributions obviously. In the Ford Foundation study,
20 for instance, you will see the conclusions of the
21 group that did the study. You will also find minority
22 conclusions from various people and this is very
23 interesting material.

24 So what I am saying is, if any of you
25 are visiting Toronto and would like to come in, we
have got these reports and many others of very



1 relevant material.

2 Perhaps what the Commission might do,
3 and the thought has just occurred to me, is get out a
4 bibliography of material and maybe some of these you
5 might present to your local library and say, would you
6 please obtain these reports and things for us, because
7 I'm sure they are accessible.

8 Thank you, Frank, for raising that
9 interesting point.

10 MR. BURT: Mr. Chairman, I was talking
11 up there briefly about waste. Because I have been a
12 farmer all my life I learned a lot of things from my
13 grandfather and I have his old sickle that he used to
14 cut grain with and he used it for something like 30
15 some years and it is still usable. I can build one
16 today for about \$1.50 and yet since I started farming
17 in the past few years I have got a whole row of
18 broken down machinery that I have used for harvesting
19 various crops. They are out-dated; the parts are not
20 available and they are just resources that were dug
21 out of the ground and energy wasted to build them and
22 they still could be used but I can't get parts for
23 them and they are out-dated and they are useless.

24 I have a tractor at home that I have
25 had for 15 years. If I weighed it now it will probably
weigh about the same as it did when I bought it. It



1 has accumulated a little bit of pig manure on the
2 sides of it and that makes up for the weight that it
3 has lost through a little bit of worn out steel.

4 Now, when we are talking about zero
5 growth with regard to having people work I would be a
6 lot happier to be able to buy a tractor that would
7 last me for my lifetime; and my son would be perfectly
8 happy to use it too and maybe my grandson if it could
9 be serviced down through the years and there is no
10 reason why it could not. 90% of it never wears out
11 and yet I could supply a lot of work to a service
12 industry that would service that tractor. It is
13 done for right now; it is going in the fence corner
14 too and I have to go and buy another one and my
15 quality of life don't change at all when I have to go
16 out and pay \$15,000 for a new tractor. But it does
17 take an awful lot of energy and a lot of raw material
18 to build that new machine and just leave the other one
19 in the weeds.

20 Another thing, in the woods we used to
21 cut logs and we always cut the tops off for firewood
22 because we tried to keep a balance on our farm. Maybe
23 I gave a couple of digs to the Sudbury area about their
24 super-stack and their junk there that comes out of it
25 but I would like to mention a little bit of waste in
Sudbury that I see everytime I come over here. One



1 of the things we need is heat and yet we dig coal out
2 of the ground in this country; we haul it and it takes
3 a lot of fuel to haul it to Little Current, and we
4 bring it over to Sudbury here by rail and I see that
5 thing happening all the time and we heat it up and we
6 heat up ore, rocks, until they run and we produce
7 enough heat in this area - I don't know, if it was
8 made into a heating unit it would heat half this city -
9 and we would not need any electricity at all.

10 But what we do with it, it is put in
11 little wee flat cars and taken out and dumped over a
12 hill and we take pictures of it and we drive out and
13 look at it and we call it the slag dump. That, in our
14 society, is an excusable waste. I think that one of
15 the things that the Manitoulin people were saying in
16 their brief there on safe power is this kind of thing.
17 Why should I let all the machines rust in the fence
18 corner when I can't get them serviced, when people
19 could be working servicing them and I would be happy
20 to continuing using them, but they become obsolete
21 because we have to dig out new material out of the
22 ground. This is our philosophy and, we all know it
23 can't last forever. We all know that we can't cover
24 farmland at the rate we are doing in Ontario and have
25 anything to eat. We know that, so we know that we
can't do these other things too.



1 I just wanted to mention this, my idea
2 of waste.

3 Thank you very much.

4 THE CHAIRMAN: Thank you, Mr. Burt.
5 Again on a personal note, I too have used a sickle and
6 a scythe and as you say these things lasted for
7 generations, as long as you know how to use your stone.

8 The question you raised on the
9 utilization of waste heat from various industrial
10 operations is obviously a very good one. There is
11 considerable interest in this I think in many places;
12 in the pulp and paper industry and my good friend Bob
13 Costello of course has been thinking about this for a
14 long time. Sweden carries out this process. They
15 have their sources of thermal energy as well as their
16 sources of electrical energy, and this provides space
17 heating.

18 Would you like to comment, Bob?

19 MR. COSTELLO: In most large
20 industries there is a lot of heat wasted. It is low
21 temperature heat but it is heat and I'm sure we're
22 going to be utilizing it. The alternative is to go
23 out and buy more expensive fuels so this gives you the
24 incentive to do these things. We do know that certain
25 areas of the pulp and paper industry are generating 50%
of the power they are using. Great Lakes Paper are



1 doing this in Thunder Bay.

2 THE CHAIRMAN: Of course this is high
3 temperature heat he was talking about.

4 MR. COSTELLO: Well, this was high
5 temperature heat. There are big volumes of low
6 temperature heat too. These are areas that are being
7 looked at. I know I have been looking pretty hard
8 in our firm, Abitibi, to see whether or not we could
9 get some steam generation facilities into our boiler
10 houses for generating electrical power. So far, at
11 least in this point of time, we have not been able to
12 make the arithmetic work out partly because of the
13 high price we have to pay for coal. Maybe the
14 government can give an assist here. If you are really
15 interested in conserving energy, this is one way of
16 doing it.

17 MR. BURT: I wonder if we will ever
18 reach the point of looking into these things. We keep
19 thinking, well, we can just add another nuclear
20 generating station and we won't have to think about
21 them now for another 30 years. You don't stir up your
22 initiative very much, when you think about this, I
23 don't think.

24 MR. COSTELLO: We do know that the
25 federal government are working very hard with industry
to try and reduce energy consumption by, say, 20%.



1 Usually you can cut your energy by, say, 10%. You
2 can, but you can't do it every year, that is the thing
3 that bothers me about zero growth. If you do it once
4 and you get behind you can't save 10% every year.

5 MR. BURT: Well, I don't know about
6 that. One of those letters that I have up there ---

7 MR. COSTELLO: Not in industry, you
8 can't, anyway.

9 MR. BURT: This letter said that we
10 lived without electricity for a long time on Manitoulin
11 and I wonder in the future if our kids will be able to
12 live with it, and I thought that was an interesting
13 question.

14 MR. COSTELLO: It is, actually, but
15 if you go back to substituting manpower for electricity,
16 there are some monumental problems.

17 MR. BURT: We have the sun and the wind
18 and --

19 MR. COSTELLO: These are the things we
20 are thinking of.

21 MR. BURT: And many heat pumps on
22 streams for heating homes. I wonder if all these
23 things will be ever utilized if we just take the
24 attitude that we can put off even thinking about it
25 for another 40 years.

MR. COSTELLO: The heat pump is a good



1 example. I got a price on one in my own house
2 because it isn't air-conditioned and theoretically if
3 you combine air-conditioning with a heat pump this is
4 the cheapest way to operate. Capital-wise, it is
5 the most expensive and this is why it has not been done,
6 I guess, in the past. We are going to have to do some
7 these things.

8 MR. BURT: One of the things that
9 bothered me about this..,

10 MR. COSTELLO: You are a well-informed
11 fellow for a farmer, Mr. Burt.

12 MR. BURT: Well, I keep my eyes open
13 a bit. Watching television, less than two years ago,
14 there was lots of Hydro ads on there for, you know,
15 to heat your home. We have all the hot water we ever
16 needed and now you know we are in a bind and when I
17 look at an organization as large as that with a
18 foresight of less than two years it frightens me to
19 death.

20 MR. COSTELLO: Of course 2 or 3 years
21 ago we were not aware what was going to come up in
22 OPEC countries and this has turned everything around.
23 I don't disagree basically with what you say.

24 MR. DON GAUTHIER: Mr. Chairman, I
25 think I can partially answer Mr. Burt's question. I
have had the pleasure spending a couple of weeks in



1 the Arctic on two different occasions and along the
2 Dew Line they have utilized energy to its utmost: (a)
3 there is a fire danger that everyone fears so they
4 have no heating units in the buildings themselves, as
5 they call them, "trains". What they have done is they
6 have put heat coils around the exhausts of their
7 generating plants and the generating plant not only
8 creates the power they need but it also creates the
9 heat necessary to keep the buildings hot in 60 and 80
10 degree below weather.

11 I must tell you it works extremely
12 efficiently and most people can run around in their
13 underwear in these buildings in the winds of winter.

14 I think it has to be the ultimate use
15 of energy being put to combined uses in such a manner
16 that it is being fully utilized. I think it is almost
17 100% heated by the energy that is utilized to generate
18 electricity. That is hot water heating by the way.

19 THE CHAIRMAN: Thank you very much.
20 I'm quite sure we are going to hear a great deal of
21 systems such as you have talked about.

22 At this time I gather Mr. Don Belisle
23 is now here and perhaps he would like to make his
24 formal presentation.

25 MR. ANDRE LACROIX: I am not Mr.
Belisle, I am Mr. Lacroix. I am President of the



1 Regional Development Corporation and it is on their
2 behalf that I am making the submission that I am going
3 to make now.

4 Have copies of this been left with you,
5 I'm not sure?

6 THE CHAIRMAN: I think so, yes.

7 MR. LACROIX: I don't wish to repeat
8 what is contained in the 3 or 4 pages before you.
9 You can read that at your leisure. I would just like
10 to pick out some of the highlights and concerns of
11 the Development Corporation with respect to energy.

12 Basically, as our name implies, we are
13 interested in the development of this region and we
14 are a corporate arm of the Regional Municipality of
15 Sudbury for that purpose. Our remarks are therefore
16 predicated on energy as it relates to development.

17 In the brief you will find that in
18 addition to recognizing environmental factors, et cetera,
19 basically we are interested in pointing out to you that
20 there ought to be enough energy provided for this
21 area to maintain our existing industries. There is
22 no doubt that the industries located in this area are
23 large users both of electricity and other forms of
24 energy and probably will demand more in the future, if
25 it is the government's policy to maintain that type of
industry here. In the long-term plan, this should be



1 taken into account. I think that is probably self-
2 evident.

3 From our point of view, we are
4 charged with increasing or broadening the development
5 of this area. By the course of things it will
6 probably be related to primary industry and usually
7 that tends to demand a lot of energy as opposed perhaps
8 to the lighter kind of manufacturing. We anticipate
9 that within the next 10 to 15 years this area will at
10 least require at least as much energy as it now
11 consumes, not necessarily in the form of electricity,
12 but we predict that that will probably be double the
13 present requirements to serve industry alone.

14 Our contention is that if, as we
15 understand it, it is the Province of Ontario's plan
16 to designate this area as an area of development and
17 while that plan is not finalized certainly all these
18 studies point at Sudbury and perhaps North Bay, the
19 Soo and Timmins will be an area of growth, a mid-Eastern
20 growth area - and if that is the case then the energy
21 requirements should be commensurate with that policy
22 of development.

23 We want to ensure that energy is
24 available and in our contacts with industries now that
25 is one of the prime questions. Can we be assured of
supply of electricity and other forms of energy?



1 We would like to be able to say that
2 along with the Provincial planning and the Federal
3 planning, as this is a DREE designated area, that
4 energy is provided to accommodate the industries that
5 wish to locate here. We say that wherever the
6 location of that generating plant is it should be
7 proceeded with right away. We say that right now it
8 appears that in the North we are importing electricity,
9 as it is. Therefore the corridor here in the North
10 should be served to adequately provide for anticipated
11 development in the future.

/10 12 We also say for instance that poor
13 facilities which are being developed close to here
14 should serve to provide any source of energy that
15 might produce further electricity.

16 We also point out I believe in our
17 submission that we encourage efficiencies naturally and
18 I am sure that this has been mentioned by others, and
19 in our experience industry doesn't need to be told that
20 anymore; the cost alone dictates efficiency in the use
21 of energy.

22 We also suggest to industry, and
23 industry recognizes that they should not limit them-
24 selves to one source of energy; that they should be
25 flexible in using gas, oil, coal or electricity.

Our submission in brief, subject to the



1 comments that perhaps you might invite from us, is
2 that the need for this area is now and the need will,
3 in the next 10 to 15 years, double; that if a
4 generating plant is required it should be proceeded
5 with right away and it doesn't go directly to the
6 south but at first serves the area of development as
7 is designated by the province as a first priority.

8 Those are basically the points we are
9 making in our submission.

10 THE CHAIRMAN: Thank you, Mr. Lacroix.

11 MR. COSTELLO: No questions, Mr.
12 Lacroix. Thank you very much.

13 THE CHAIRMAN: Mr. Lacroix, do you see
14 population growth happening. We heard previously
15 that in the school population the population seems to
16 be dropping over perhaps the next 5 or 6 or 7 years
17 with a possible pick-up, but in your planning
18 perspectives do you actually see a fairly appreciable
19 population growth in the area?

20 MR. LACROIX: No, I think I would
21 describe it as moderate but more steady growth perhaps
22 than it has had before. If some of the things we
23 anticipate come true I suggest we would have a pretty
24 regular rate of growth between now and the year 2000
25 in the area perhaps of 3% or so.



1 DR. ROSEHART: Just one minor point,
2 perhaps, if you are going to have growth and you are
3 going to have more industry perhaps in this area, with
4 respect to provincial planning, do you know of any
5 interaction between the government and Ontario Hydro in
6 this area?

7 MR. LACROIX: I think it is absolutely
8 essential that if the province, as I suggest they are
9 doing, are designating areas of growth within this
10 province, that Ontario Hydro, which is the electric
11 arm, so-called, the government, must accommodate their
12 priorities with it. Otherwise it is useless. The
13 reason I am suggesting that perhaps our demands for
14 energy might be greater than our population indicates
15 is that we anticipate the kind of development to be of
16 a heavy nature, usually requiring more energy than
17 others, as opposed to a sudden growth in the
18 population.

19 THE CHAIRMAN: Presumably in the
20 metallurgical industries.

21 MR. LACROIX: Or spin-offs therefrom,
22 et cetera.

23 THE CHAIRMAN: Thank you very much, Mr.
24 Lacroix.

25 I wonder if Dr. Paul Nolan is here -
Dr. Nolan?



1 DR. NOLAN: Thank you, Mr. Chairman.
2 On behalf of the Sudbury and District
3 Chamber of Commerce it is my pleasure to have this
4 opportunity to discuss --

5 FROM THE FLOOR: We can't hear you.

6 DR. NOLAN: I have had this brief,
7 I wish I had had an opportunity to present it to you
8 a little earlier so that you could perhaps have
9 studied it in more detail so I would not have to read
10 it, but I think I prefer to read it.

11 THE CHAIRMAN: All right.

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1 DR. NOLAN: The need for increased
2 electrical power has been exemplified by the Ontario
3 Hydro Commission. However the exponential of a 7%
4 per annum increase in the load growth is questioned
5 and possibly some efforts should be made to educate
6 the public not to have such high expectations, in
7 particular when one looks at the gross energy
8 consumption of the Western world relative to the
9 world's population and observes Canada to be only
10 slightly lower than the United States. Granted we
11 live in the Northern hemisphere and have a colder
12 climate with possibly more need for energy, perhaps
13 we are wasteful in our needs as well.

14 Therefore some thought should be given
15 to the relationship of load growth and to our popu-
16 lation growth. Is the natural increase in our
17 population relative to the increase in the load growth
18 or is it due to an immigration policy which is taxing
19 our resources excessively? The projected population
20 figures of Metropolitan Toronto by the year 2,000 is
21 expected to be, as I understand it, in the area of
22 eight million people. Certainly it is common knowledge
23 that the energy requirements of the world is increasing
24 as the third world becomes more industrialized, and
25 therefore it is extrapolated that at the present rate
of consumption our hydrocarbon depletion will be a fact



1 by the year 2,000, that the 40,000 by-products of
2 petroleum with the concomitant technology and living
3 standards will be jeopardized. The dilemma therefore,
4 presents itself of a nuclear versus a non-nuclear
5 source of thermo generation of electrical energy.
6 Certainly the contamination of the environment by the
7 hydrocarbon source is known. Sulfur dioxide,
8 respiratory diseases, alteration of our environment,
9 et cetera must be considered.

10 The lignite deposits in Northern
11 Ontario I assume have been considered as a source of
12 fuel for the generation of power. If not it possibly
13 could be considered with the development of an
14 industrial base as well. I understand the low yield
15 potential. I do think that this source should be
16 considered as a temporary measure and that the
17 consumption of natural gas, oil, coal from the
18 Western provinces could be as well, located possibly
19 in the Sudbury area where already industrial damages
20 have occurred, and that the location of this energy
21 generation plant would not be incompatible with our
22 area. It could, as well, be monitored and there
23 being a natural water disposal area nearby in our lakes
24 this source could be worked on immediately. The
25 development of a port with the transportation
ordinates to back it up in the form of the extension



1 of Highway 17 or 69 could similarly be considered, the
2 facilities already being there they would only have
3 to be enlarged i.e. Spanish, Britt, Parry Sound. The
4 Fisher Harbour complex would not be suitable because
5 of the non-conformity with the Northern Georgian Bay
6 Recreational Reserve Statutes.

7 The ultimate fuel however as I under-
8 stand it to be, would be nuclear power and in Canada
9 the present CANDU system is recommended.

10 However, "The Problems of Nuclear
11 Energy in Canada with its potential and problems" by
12 Thomas L. Perry is referred to with much respect, as
13 well as his references. I would quote from that
14 article, H. Alfven with respect to fission energy and
15 the difference between the real world and the
16 technological paradise,

17 "... that fission energy is safe only
18 if a number of critical devices work
19 as they should; if a number of people
20 in key positions follow all their
21 instructions; if there is no sabotage;
22 no highjacking of the transports; if
23 no reactor fuel processing plant or
24 repository anywhere in the world is
25 situated in the region of riots or
guerilla activity; no revolution or war -



1 even a 'conventional' one, takes place
2 in these regions. Enormous quantities
3 of extremely dangerous materials must
4 not get into the hands of ignorant
5 people or desperados and no acts of
6 God can be permitted."

7 While most Western nations, including
8 Britain, France, Japan, the United States, U.S.S.R.
9 are pushing ahead with nuclear energy, as well as
10 Canada, it is interesting to note that the Swedish
11 Parliament has passed a moratorium; that Australia
12 is hesitant. British Columbia's Premier, David
13 Barrett, feels that radio-active waste should not be
14 created until a method for any long term disposal is
15 proven. Therefore, there is a dilemma, we must make
16 a choice of alternatives which are all unpleasant.

17 The pollution from fossil fuels is
18 killing and disabling people, the permanent legacy
19 of environmental destruction is occurring from coal
20 mining. The Hydro Electric projects inalterably
21 destroy our fisheries, wildlife, agricultural land,
22 scenic resources and human cultures, and thus
23 eliminate future generations right to use the land
24 differently. It is imperative to control our energy
25 demands and look for sources of energy which have a
minimal effect on human health and the environment,



1 without the potential dangers of technology like
2 nuclear energy.

3 I will avoid considering other alter-
4 natives and deal basically with nuclear versus a
5 hydrocarbon form of thermo generation. The big
6 problem as I understand it is control of toxic waste.
7 As I see it, it is this point that I must say I have
8 the least credibility. I have listened to the learned
9 nuclear physicist Dr. Vivian from Ontario Hydro and,
10 with the greatest respect. I have read somewhat on
11 the subject, and it is difficult for me to comprehend
12 the magnitude of statements made where storage of
13 lethal substances can be made safely for periods in
14 excess of 250,000 years, when anthropologists who
15 have studied Peking man say that he roamed the earth
16 some 250-300 hundred thousand years ago and, at that
17 time he possibly exploited fire.

18 Civilization has only existed for some
19 ten thousand years, beginning when the ice age
20 terminated and agriculture became possible. The
21 Trojan War was fought two thousand years B.C. ago.
22 Rome conquered Carthage approximately twenty-one
23 hundred years ago and the Renaissance lasted really
24 only 50 years, et cetera, and therefore, in terms of
25 this storage of biologically toxic agents, I cannot
accept the fact that these materials can be safely



1 maintained for a time period defying human imagination.
2 Despite these measures the Atomic Energy Commission of
3 Canada has gone ahead with the nuclear reactor project.
4 They have built and are continuing to build reactors
5 in Ontario as well as the rest of Canada. They have
6 gone so far as to export their technology to countries
7 like India; Korea and Argentina are similarly under
8 consideration. The American Energy Commission has
9 recently authorized the sale of a nuclear reactor to
10 Egypt and to Israel. Considering the history of
11 mankind and these two ancient cultures, what method
12 of madness have we ventured upon.

13 If India as a result of the Plutonium
14 by-product has developed its own hydrogen bomb, then
15 any other nation state can do the same with the
16 devastating effect of nuclear blackmail being issued
17 wholesale. Since Canada has a major source of
18 uranium it should insist upon absolute full controls
19 of the by-products. Until then I cannot condone a
20 nuclear alternative. A Moratorium should be made on
21 the further development of nuclear plants until a
22 satisfactory means of disposal has been developed
23 technologically. Certainly plutonium is a fictional
24 substance and should be stored until this day. How-
25 ever, no further manufacture of this material should
be allowed until the development of an international



1 body through the United Nations makes a plutonium
2 bank available to the world in a controlled way.
3 Disposal systems of other by-products could possibly
4 be made through space and finally sent to where they
5 arose.

6 The problem of thermal pollution should
7 also be considered by exploiting its potential in the
8 development of a green belt with artificial green-
9 houses in the Northern Ontario area. This may sound
10 rather naive. However, possibly a whole new agri-
11 cultural policy could be developed, a major industry
12 of major magnitude, and possibly eliminating our
13 dependence upon other prime markets for our food
14 sources. This possibly could lower our cost of living
15 in terms of food requirements and similarly the use of
16 heat generated could be similarly applied for use in
17 domestic and industrial areas.

18 All of these ideas Mr. Chairman I am
19 sure you have heard before. However to put things
20 in perspective I would respectfully refer you to the
21 Globe and Mail dated November 3rd, 1975 regarding the
22 Galloway case. That the problem of radioactive waste
23 and its effect on this human being is explicitly
24 demonstrated and with the greatest of compassion for
25 this man and his family, I am grateful that at the
present time we are still immune in Northern Ontario



1 from this story of ecological tragedy, and further-
2 more Mr. Chairman, and with the greatest respect, we
3 do not want it.

4 This particular tragedy was written
5 up in the paper yesterday. It had to do with an
6 Ontario family who was being forced out of their home
7 at Deloro, Ontario. The reason why they were being
8 asked to move away was because some industrial people
9 irresponsibly dumped their radioactive waste in the
10 fields nearby where they happened to live. It was so
11 close that they said that the danger of radiation
12 exposure was great enough to contribute to the
13 development of lung cancer in this poor man and he
14 replied, I already have lung cancer and he has to move
15 his family and everything out of here.

16 As a humanitarian I feel I do have the
17 greatest compassion for this individual.

18 Finally, Mr. Chairman, the Sudbury
19 and District Chamber of Commerce, faced with alterna-
20 tives, would be in favour of a hydro generating plant
21 in the Dean Lake area. It is not in favour of a
22 hydro generating plant or any other form of heavy
23 water plant in the LaCloche area or anywhere in the
24 area known as the Northern Georgian Bay Recreation
25 Reserve area.

Having just received the literature



1 from the Royal Commission on Electric Power Planning
2 it is respectfully requested that the Chamber have
3 an opportunity to digest the contents of its
4 guidelines et cetera with respect to the Terms of
5 Reference, objectives of the Commission and it would
6 be expected that the Chamber would have an opportunity
7 to expand its position to the Commission at a later
8 date.

9 Thank you, sir.

10 THE CHAIRMAN: Thank you very much,
11 Dr. Nolan. You certainly will have an opportunity
12 at a later date when the main inquiry gets underway.
13 As you know, this part of the inquiry is merely to
14 identify as many issues as possible and so on.

15 There is just one point, a rather
16 important one I think, that I would like to correct
17 you on. The Atomic Energy Commission of Canada of
18 course is the regulatory body. When you said they
19 were responsible for exporting CANDU you meant I think
20 Atomic Energy of Canada Limited. They are quite
21 different bodies.

22 DR. NOLAN: I stand corrected, Mr.
23 Chairman.

24 THE CHAIRMAN: The Atomic Energy
25 Commission of Canada is that body that regulates any



1 nuclear programs of course and carries out their
2 tests and examinations and so on for the protection
3 of the public, in other words, the regulatory body.

4 When Dr. Nolan referred to plutonium,
5 I am sure since we are thinking of this in an
6 educational point of view as well as receiving
7 information, I am sure that most of you recognize that
8 plutonium is the material used for the thermal nuclear
9 explosions. I think the second nuclear bomb that was
10 ever exploded was a plutonium bomb. At present of
11 course, it is used to trigger off a much higher level
12 "yield" bombs which are predicated on the fusion
13 process but the plutonium is the trigger for these
14 bombs.

15 It is a radioactive substance, as you
16 have pointed out, in its own right; it is also a
17 toxic substance.

18 Did you have any points, Bob?

19 DR. ROSEHART: Just the one point,
20 where is Dean Lake?

21 DR. NOLAN: I would have to get your
22 map.

23 DR. ROSEHART: Just roughly.

24 DR. NOLAN: It is on the north shore
25 but it is not part of Georgian Bay per se. There is
an isthmus (is that the proper geographic term) an



1 isthmus of land between the lake and Georgian Bay.
2 There is a buffer. You could do all kinds of things
3 with these sides of land. This is where we feel that
4 possibly this site might be considered.

5 It would appear that it plugs into the
6 problem in many ways. We understand there is Crown
7 land there that probably could be expropriated. We
8 understand that people want it, which is an interesting
9 situation.

10 MR. COSTELLO: You made reference to
11 a hydro station.

12 DR. NOLAN: I mean a thermal generating
13 station.

14 MR. COSTELLO: Fossil fuel?

15 DR. NOLAN: Fossil fuel until we get
16 ironed out on this other deal. I really have the
17 greatest of confidence in nuclear energy. I think it
18 is the fuel of the future. And its by-products, we
19 could maybe work out the plutonium. Maybe we could
20 even work out hydrogen. But these things have to be
21 evolved and I think we have to do it in a responsible
22 fashion, not in this type of thing where all of these
23 other characters are getting that stuff and being able
24 to use it and manufacture it in a political way.

25 That is why I used the word "worldbank".
I think that the world is a small place with a limited



1 energy resource life. We are in an enviable position
2 in Canada with uranium. We can play around with it.
3 We don't even use our U-2-38.

4 MR. COSTELLO: We don't have an
5 exclusive on uranium.

6 DR. NOLAN: I know, but if other
7 people were militaristically oriented they might
8 consider our area enviable.

9 MR. COSTELLO: Could be.

10 DR. NOLAN: I think as a result the
11 countries which have uranium should propose the
12 concept of an energy bank in the form of storage of
13 this waste product which, in my mind, I can't envisage
14 a quarter of a million years, Mr. Chairman, but I
15 don't think it is going to take a quarter of a million
16 years for the industry and engineers and those people
17 who are capable, nuclear physicists, to be able to
18 use plutonium in a responsible fashion. This could
19 be the second order of nuclear fuel.

20 THE CHAIRMAN: Dr. Nolan, your
21 suggestion re this energy bank of course if a very
22 interesting one. I don't know whether you realize,
23 the United Nations at present is considering that
24 self-same proposal very actively especially insofar
25 as these wastes containing plutonium are concerned;



1 and this is now a United Nation's project. I don't
2 know how long it will take them to come up with an
3 answer but it is interesting that you should have
4 suggested it.

5 DR. NOLAN: I did not know that, but
6 I think this is where it all has to go. Afterall,
7 no human being has any longer the right to say that he
8 has an energy source when the rest of the world is
9 without energy, and that the potential of this
10 energy source is unlimited. It really is. Isn't it?
11 If you could develop the technology to back it up and
12 get rid of its garbage.

13 THE CHAIRMAN: In totality, it is a
14 very big --

15 DR. NOLAN: It is big, sir, in the
16 totality of things when we are dealing with creativity
17 and protons, nutrons, electrons, negative bodies,
18 et cetera.

19 THE CHAIRMAN: Thank you very much, Dr.
20 Nolan, for a very interesting submission. I think at
21 this time, ladies and gentlemen, in view of the fact -
22 and I hope some of you will be coming back this
23 evening - that we have our evening session starting at
24 8 o'clock.

25 It will be the same sort of thing, I
think. In other words, some briefs will be presented



1 and then we will be able to have the opportunity of
2 hearing from you from the floor and also hearing from
3 you at the coffee break halfway through.

4 Thank you very much for your attention
5 and participation.

6
7
8 --- 2:00 P.M. SESSION ADJOURNMENT.
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Government
Publications

THE ROYAL COMMISSION

ON

ELECTRIC POWER PLANNING

*Preliminary Meetings of the Royal
Commission on Electric Power Planning*

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ROYAL COMMISSION

ON

ELECTRIC POWER PLANNING

Meeting held at the Palladium
Room, Holiday Inn, Sudbury,
Ontario, on the 4th day of
November, 1975 at 8:00 p.m.

MEMBERS OF THE COMMISSION:

DR. ARTHUR PORTER	CHAIRMAN
MME. SOLANGE PLOURDE-GAGNON	CO-CHAIRMAN
ROBERT E.E. COSTELLO, ESQ.	MEMBER
DR. WILLIAM W. STEVENSON	MEMBER



1 ---On Commencing at 8:00 p.m.

2 THE CHAIRMAN: (Introductory remarks)

3 MME.PLOURDE-GAGNON: I hope that
4 everybody has bilingual equipment. If somebody does
5 not have it you should get it.

6 (Translated from French) -

7 Now to wish you one and all a good
8 evening; and this is in the name of all my colleagues.

9 I notice that several young people are
10 present. I do not know whether it is better to call
11 them all young people or all students but it makes me
12 think of something quite funny that happened to me a
13 few years ago. Of course it happened a few years ago
14 and now I am forced to tell you I am 46 years old.
15 As a Journalist two years ago I had to meet French-
16 speaking people in Ontario and after the meeting the
17 people came to tell me that a lady said something that
18 they did not like and they were not in agreement with -
19 and I want to remind you again four years ago I was 42 -
20 and they said, Solange, she can't understand us; she
21 is about 40 years old; she is an old lady. I let it
22 go on and at the end I asked them how old they thought
23 that I was and I told them I was 42 years old. After
24 that time, nobody called me Solange any more. They
25 called me Madame.



1 Sudbury is not a new town for me.
2 I have had the pleasure to be here previously as a
3 journalist. I had met a very impressive group of
4 French people. I was impressed by their number and
5 their vitality.

6 Tonight they are free to speak and
7 they can speak in French if they wish. I would like
8 to say a few words after Dr. Porter to specify that
9 although I am not expert or a wise woman in the
10 question of energy or electric energy, I think this
11 takes nothing away from us, nothing away from our
12 mandate within the Commission.

13 I represent the consumer woman and the
14 French language in this province within this Commission.
15 I have a good time telling people quite often that we
16 were able to get in a package deal in this Commission
17 the ordinary consumer who, every 5 minutes in his
18 regular day, uses electric power, is not an expert, he
19 uses all these marvelous things without thinking
20 about whether these things will go on forever. Then
21 I say that I am a very happy person to represent the
22 ordinary consumer. Just like me the ordinary consumer
23 is not an expert. He is a bookkeeper, he has to
24 handle the family budget, and he asks himself whether
25 the natural resources and electric energy, a gift of
 God shall never disappear.



1 You and we are here tonight to listen
2 to you to consider your local problems or needs in
3 respect to electric power. The Royal Commission on
4 electric power planning is different from other
5 Commissions because it relies on your recommendations,
6 your suggestions and it needs your total participation
7 in order to function and to recommend your wishes to
8 the government.

9 If you feel a need to speak, to express
10 your opinions in your own language in a very relaxed
11 manner, please go ahead. This is the time for it.

12 THE CHAIRMAN: Thank you very much,
13 Solange.

14 I think perhaps now we should start
15 with the written submissions. I think there are
16 three. I would like to mention who they are, first off.
17 I have got actually down here quite a few more that
18 I hope will come forward before the evening is up.

19 The first one is Mr. Wilkins. Is Mr.
20 Wilkins here? Mr. Wilkins, would you like to come to
21 this table? Thank you very much.

22 MR. WILKINS: First of all, Mr.
23 Chairman, and Madame Plourde-Gagnon, thank you for
24 your opening remarks.

25 My name is Wilkins. I am a resident
of Sudbury. I was born and bred here and I know the



1 Manitoulin area very well. I have been going up there
2 all of my life.

3 I'm here tonight in my capacity as
4 President of the Birch Island Community Association
5 which is a group of approximately 53 families who
6 own property in the area known as the Bay of Islands
7 in the north channel of Lake Huron. This association
8 was founded approximately 50 years ago. I am here
9 today to register the association's vehement
10 opposition to the construction of a nuclear or fossil
11 fuel generating station on the Island of LaCloche.

12 Some time during the month of March
13 of this year, our association became aware through
14 press releases that Ontario Hydro planned to construct
15 a generating station somewhere in the north channel
16 of Lake Huron. We later learned that three sites
17 were under consideration -- namely Bruce Mines, Blind
18 River and LaCloche Island. We were later informed
19 by Hydro that it conducted a public survey in the
20 relevant areas some time during the late summer of
21 1974. I wish to inform you that not a single member
22 of our association was contacted or interviewed by
23 Hydro. A further survey, I am informed, was conducted
24 by Hydro this past summer. Five members of our
25 association, namely those residing in the eastern



1 region of the Bay of Islands, were contacted by
2 Hydro.

3 Let me now inform you why we oppose
4 the construction of any nuclear or fossil fuel station
5 on LaCloche Island.

6 Firstly, any such construction
7 blatantly violates the provisions of the North
8 Georgian Bay Recreational Reserve Act, 1962.

9 Secondly, any such construction transgresses the
10 boundaries of long established Indian land, such that
11 it would irreparably damage the present character of
12 the Whitefish River Indian Reserve.

13 Equally as pertinent as the foregoing
14 transgressions is the devastating threat such a power
15 station poses to the untouched natural beauty of the
16 area as it exists now. It is inconceivable that such
17 an atrocity should even be considered in an area that
18 is so beautifully recounted in Indian history and
19 legend; an area that is, as well, an integral part
20 of English and French Canadian history, encompassing
21 not only the historic Voyageur's Route to the West,
22 but also a number of old and fascinating Hudson's
23 Bay Posts. Indeed it is an area of such a rare
24 combination of history and unspoiled natural quietude,
25 that to consider it for such massive and ugly
construction is an act of heart rending destruction



1 and supreme lack of foresight.

2 Commensurate with the destruction
3 resultant from the mere construction of such a power
4 station are the overwhelming implications of the use
5 of atomic energy. Surely it is scarcely responsible
6 to proliferate radioactive wastes whose safekeeping
7 cannot be guaranteed. More frightening still is the
8 fact that no one is convinced that anyone knows what
9 the risk is of significant accident.

10 And it is yet again overwhelming to
11 realize that the staggering implications of the
12 ultimate risk of atomic energy stations are accompanied
13 by an intervening social and environmental impact,
14 the consequence of which we are most certainly not
15 even now fully aware. What happens to an area that
16 is struck suddenly by a massive influx of man and
17 machinery, an influx that arrives only to almost as
18 suddenly depart? What happens to the balance of
19 wildlife and vegetation when the surrounding water
20 temperature is raised by several degrees? Our
21 immediate concern is for the preservation of the
22 area of LaCloche and its environs, but surely, we,
23 all of us, have a right to demand answers to these
24 vital questions, and if given uncertain or
25 unsatisfactory responses, to deny such construction
on either our private or public lands. Surely



1 LaCloche Island and its environs, splendid in beauty
2 and in history, unique in North America, can claim
3 immunity from man's hunger for power.

4 In order for us to effectively
5 participate at the hearings of the priority projects
6 scheduled to commence in March or April of 1976, we
7 will require immediate financial assistance to conduct
8 historical research and to hire experts to determine
9 the impact such a development would have on the
10 quality of life as it now exists in the area.

11 I was indeed surprised to learn that
12 your mandate on the priority projects was restricted
13 to the "need" for these particular projects and that
14 it did not extend to the impact such a nuclear and/or
15 fossil fuel generating station would have from an
16 environmental and socio-economic point of view.
17 However, I was grateful to learn, Mr. Chairman, that
18 "quality of life" fitted within your definition of
19 need.

20 You mentioned tonight the term
21 "quality of life". Let me tell you that we in
22 Northern Ontario are a hale and hearty people. We
23 spend long, hard winters up here. We enjoy our
24 recreation; and when the summer comes we do not want
25 to see this desecrated waste by the construction of a
nuclear plant; and I submit this with respect.



1 THE CHAIRMAN: Thank you very much,
2 Mr. Wilkins.

3/ 3 Would you like to stay there in case
4 there are any questions that the Commission might
5 like to ask of you. You raised a question of
6 financial support. As you say, you will require
7 immediately financial assistance to conduct historical
8 research and hire experts. As I mentioned right at
9 the very beginning it looks as though the budget of
10 our Commission has been approved and included in that
11 budget there is indeed funds and you find in the
12 information kit the process or the procedure which we
13 would like you to follow in putting in a proposal for
14 funding. The sooner you can put this in, the better,
15 from our point of view.

16 MR. WILKINS: Thank you, Mr. Chairman.
17 I will look into that.

18 MME. PLOURDE-GAGNON: (Translated from
19 French)

20 I notice that in your paper you
21 mention that you were surprised to learn the fact that
22 one must consider the needs and the priority projects
23 and I think we should explain to you that our mandate
24 contains two aspects. One is the aspect of priority
25 projects and one is that of long-term planning and I
think that Dr. Porter can come back to that.



1 THE CHAIRMAN: I think what Solange
2 is saying is that when the Commission was first set
3 up the Terms of Reference in the very early stage,
4 this was long before it became an Order in Council,
5 that the priority items were not actually included but
6 subsequently they were introduced so that we do,
7 as she said, effectively have the two important
8 components to our study. The major one, we feel, is
9 looking to this future. Of course you can't say
10 which one or the other is major. It depends where
11 you live in the province, very obviously, so one is
12 this long-term planning concept relating to this
13 period 1983-1993 and beyond. The other of course is
14 the need for this kind of project.

15 MR. WILKINS: I understand, Mr.
16 Chairman, that you must operate within the Terms of
17 Reference but I think you should also understand that
18 the feelings of the people in Northern Ontario with
19 regard to their way of life and their quality of life
20 should be taken into consideration, because we may not
21 want this disturbed by such a massive undertaking as
22 the development of a nuclear plant in a prime
23 recreational area. This is our whole point.

24 I can tell you this, that I know a
25 lot of the Indians up there on this White Fish River
Indian Reserve that I referred to. They are friends



1 of mine. I act for them in a legal capacity. I
2 have done work for them, and they are very much
3 against this thing too.

4 It is very strange to us that with all
5 this opposition the Ontario Hydro will even consider
6 LaCloche Island as a location.

7 This is what I wanted to bring to the
8 attention of the Commission because we do not want our
9 way of life disturbed; and I think our native people
10 feel the same way.

11 MR. COSTELLO: Just a couple of small
12 points, Mr. Wilkins. This proposed station is not
13 necessarily nuclear. It could be fossil fuel.
14 However, I think you would object just as much to
15 fossil fuel as nuclear.

16 MR. WILKINS: Yes, we would. You can
17 talk about these terms. It is still a massive
18 undertaking. Fossil fuel, as I understand it, you use
19 coal, is that right?

20 MR. COSTELLO: Yes.

21 MR. WILKINS: And there are large
22 shipments of coal brought in by ship and so on. We
23 would be against that too.

24 MR. COSTELLO: I live at the other end
25 of the north channel.

MR. WILKINS: Maybe you are one of the



1 lucky ones.

2 MR. COSTELLO: Not necessarily. I am
3 just being the devil's advocate. There are problems
4 with both ends of the same channel. I think my end
5 is just as beautiful as yours.

6 MR. WILKINS: I am sure it is.

7 DR. STEVENSON: Mr. Wilkins, a
8 question here just so we can make it unanimous. Are
9 most of the families on Birch Island that own property
10 there cottage owners or permanent residents?

11 MR. WILKINS: No, they are cottage
12 owners. The association I represent, they are all
13 cottage owners. Most of them have islands out in the
14 Bay of Islands which is part of Lake Huron. There
15 are a few campers on the main land but I would say at
16 least 90% of them are out in the Bay on islands.

17 DR. STEVENSON: So the point you are
18 making, and speaking in a more general way, just as a
19 representative of the Birch Island Community
20 Association, would you say that the impact of the
21 station in this area would principally be detrimental
22 to the enjoyment of the area by cottagers or permanent
23 residents or how would you sort of divide the impact?

24 MR. WILKINS: I think it is definitely
25 going to damage the cottagers. As far as the



1 permanent residents are concerned, I think it would
2 inhibit growth of any of the Indian reservation
3 communities. Their population up there is really
4 sparse now.

5 For instance, as I understand it,
6 there are federal funds which are available to Indian
7 people living on reserves for construction of homes
8 and I was told even condominium units that the
9 federal government is thinking and if these people,
10 to be in the area of a nuclear plant, from what I
11 understand the population must be limited. The
12 fringes of this buffer zone actually go right onto
13 the Reserve. That would be one aspect for the
14 permanent residents.

15 The other permanent residents of course
16 are people who live in areas like White Fish Falls
17 and Little Current and Manitoulin Island. I think if
18 the plant goes in this will affect them because it
19 will affect the tourist industry up there. A lot of
20 these people who live on the Island are very dependent,
21 economically, on the tourist season.

22 DR. STEVENSON: Thank you, Mr. Wilkins.

23 THE CHAIRMAN: Thank you very much.

24 MR. WILKINS: Thank you, Mr. Chairman.

25 THE CHAIRMAN: It is Lynn Reid here.



1 MR. REID: My name is Lynn Reid and
2 I work with the Great Lakes Greenpeace Organization
3 working on the Great Lakes. We are just getting
4 started and are rather disorganized. To get our
5 brief together tonight I mentioned to my friend if he
6 could type it up I would have the time to attend. So
7 he typed it, and I am here.

8 Great Lakes Greenpeace find the
9 following to be true and submit a moratorium on
10 nuclear reactors to be called immediately.

11 (1) Plutonium remains active for
12 240,000 years and as yet there is no way of storing
13 this deadly material safely for this period of time.
14 Presently, reactors have an operating life of 30
15 years, storage facilities last 100 years and
16 plutonium remains active for 240,000 years. This
17 means that 2,400 storage tanks will have to be
18 maintained by 12,000 future generations. To consider
19 this defies any form of logic.

20 (2) Canada is involved in the sale
21 of nuclear reactors to politically unstable countries
22 such as Argentina and South Korea. Argentina is a
23 country on the verge of anarchy and the sale of a
24 reactor and plutonium refining facilities is
25 completely irresponsible.



1 (3) Canada, by the sale of CANDU
2 reactors, was responsible for, and knew as early as
3 1971, that India would detonate an atomic device.
4

5 (4) There are not, as yet, sufficient
6 safeguards on reactors throughout the world.---The
7 International Atomic Energy Agency in Vienna is too
8 small and does not have the enforcement power to do
9 its investigation adequately. From my research in
10 that I find, I believe it is 130 people in the U.N.
11 looking after, presently, 625 reactors which they
12 just can't do it. From talking to the brother of
13 a person whose job it is through the U.N. to go into
14 the countries and check to see that the safeguards
15 are maintained, I'm not stating his title, but he is
16 at least three days at the border as soon as he shows
17 his U.N. passport so in effect there is no security.
18

19 (5) Canada may be in direct
20 violation of the Nuclear Non-proliferation Treaty in
21 its sale of reactors to unstable nations if the
22 materials are used for the construction of atomic
23 weapons.
24

25 I was not exactly clear on how
26 Canada would be against the non-nuclear proliferation
27 so I ran over to the library and did a quick bit of
28 research on the Non-proliferation Treaty. It was
29 signed July 1st, 1968; 56 nations attending.
30



1 Essentially the Treaty provided that nuclear weapons
2 powers which adhered to it would not supply nuclear
3 weapons or weapon technology to non-nuclear nations;
4 second, the latter would undertake not to acquire
5 nuclear weapons by any means; and, three, the nuclear
6 nations would accept the International Atomic Energy
7 Agency Safeguard system as a means of assuring that
8 their nuclear installations and materials were not
9 being used for militant purposes.
10

11 India, I think, is a sign of what
12 happened. A measure of resistance to this Treaty was
13 put up by countries, West Germany, Japan, Italy,
14 India, Argentina and Brazil at the time. Canada is
15 interested in selling reactors to Italy, Argentina and
16 Brazil, as far as I know, and as of yesterday I hear
17 the United States gave Israel two reactors; and I
18 believe France has a reactor, not producing energy.
19 No one really knows what it is producing and it stands
20 a chance of being another nuclear power, holding us
21 in the balance of terror in the nuclear range.
22

23 Article 6, each of the parties of the
24 Treaty undertakes to pursue negotiations in good faith
25 on effective measures relating to cessation of the
26 nuclear arms race at the earliest date, and to nuclear
27 disarmament and a treaty on general and complete
28 disarmament on strict and effective influential control
29
30



1 which has not happened since July 1st, 1968.

2 Therefore Greenpeace submits that:

3 1) a moratorium on nuclear reactors
4 in this country be called immediately until adequate
5 storage facilities for plutonium are developed.
6

7 2) the sale of nuclear reactors to
8 foreign nations be halted until adequate safeguards,
9 pertaining to the construction of atomic weapons, are
10 guaranteed.
11

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THE CHAIRMAN: Thank you, Mr. Reid. I did not introduce, and it was very remiss of me, Doctor Rosehart, who is scientific counsellor to the Commission. We have a scientific counsellor as well as a legal counsel so Bob, from time to time, does ask questions for clarification.

DR. STEVENSON: I do have a question of Mr. Reid. Just this, it would seem that of your two recommendations, the one calling for a moratorium on further development reactors would clearly come within the compass of our terms of reference, looking at Ontario and future power technology that is appropriate for Ontario.

I think it is probably just as clear that the second item in your recommendation does not come within our compass in that whoever approves the sale of nuclear reactors abroad it certainly is not an Ontario Government Agency or Ministry. It would be the Federal Government. But I think that you would probably reply that what you are putting forward is a general concern with nuclear power and all its ramifications, for our consideration.

MR. REID: I think the scope of



5.2

1 our concern is probably least with nuclear
2 reactors although I find it is, let us say, the
3 bottom of the mushroom, what has happened.

4 DR. STEVENSON: Insofar as the
5 India matter is concerned, for example, now that
6 is the use of the tailings of a reactor for
7 grading into weapons grade plutonium, and then
8 ultimately using them in a nuclear device for a
9 bomb of some kind, do you have any Canadian concern
10 about this insofar as you may be concerned about
11 thefts of plutonium from storage bays and nuclear
12 power sites in Canada, that sort of thing. You
13 have not made that explicit but does Greenpeace
14 have that concern?

15 MR. REID: I think all humanity
16 does. If plutonium is stolen -- from my understanding,
17 if 1 per cent of the plutonium produced this year
18 which I believe will be approximately 2,000 pounds,
19 1 per cent is missing, it gives capabilities for
20 eight more nuclear bombs. The safeguards on
21 plutonium are not that close. People really do
22 not know what Israel is doing with the reactor or
23 where the plutonium is going to. It may or it
24 may not be a nuclear power.

25 I see Canada in a geographical



5.3

1 location to take the lead for disarmament in the
2 world by calling an end to nuclear reactors until
3 such time global consciousness rises to where it
4 can live with this new form of energy, if it is
5 required. From my research I understand that the
6 President of the United States has the capability
7 and the power to destroy the planet Earth within
8 half an hour.

9 DR. STEVENSON: My last question
10 for you, Mr. Reid, have you or has Greenpeace
11 considered the very pragmatic alternatives to
12 Canadian nuclear power development? You either
13 do without the electricity or you generate it some
14 other way, don't you?

15 MR. REID: I feel it is like
16 Trudeau's talk on the budget. We have to change
17 our life styles and start to live a little more
18 fluidly. Mr. Costello mentioned last night there
19 was no growth last year, that we were at a zero
20 growth rate. Now, the light bulbs all turn on.
21 Let's stop it at that for now until things catch up.

22 This is only our thinking and we
23 will work towards actuality.

24 MR. COSTELLO: Maybe I should just
25 comment there. I did say that, that is correct.



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1 But there are an awful lot of people out of work as
2 a result of the decline in the economy. They are
3 looking for jobs, looking for work. Slow down in
4 the growth of the economy is due to world conditions
5 and some conservation.

6 MR. REID: Would it not, at this
7 time, be sensible to look at the world's second
8 problem, and that is population to food production;
9 and start generating the energies into stabilizing
10 the food. Apparently the food level is dropping.
11 The next crisis will be food, after the oil one
12 has been worked out and will reach serious
13 consequences in this country.

14 I see we are sitting in a favourable
15 time gap in this country. In about five or six
16 years we will be in the same state as England. There
17 is just a time lag. We are in a position that if
18 we act now, right now, we may be able to save this
19 dropping off.

20 MR. COSTELLO: Could be. There
21 are many facets to this whole problem. I have been
22 in India. I was there when that reactor was shipped
23 over there. They need fertilizer desperately in
24 these countries and fertilizer is a great consumer
25 of energy. I am not disagreeing with you.



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MR. REID: I understand that India was at 60 per cent of its agricultural potential when it decided to invest their money into the nuclear club.

MR. COSTELLO: They were generating electricity and the farmers were not using it. They did not want to use the water from this watershed. They did not want to use the water because they understood it was full of electricity. That is true. I suppose it takes centuries to undo all these things. It is full of electricity in a way, but it wasn't going to affect their vegetables.

THE CHAIRMAN: I think there is just a small point, Mr. Reid, in case I caused a little misunderstanding. This question of plutonium, as far as Canada is concerned, in Canada the plutonium, there is certainly plutonium in the radioactive waste from a nuclear power station but it is incredibly difficult to separate; so as far as Canada is concerned, at present there is just no possible way that anybody could steal this plutonium and use it for any weapon at all. It is just absolutely quite impossible and indeed, on this continent, strangely enough, there is no separation out of the plutonium.



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1 In Britain it is being done at the
2 Windscale plant and has been for 20 years. They
3 are separating it out, but I think it is important
4 that people could not go around and pinch some of
5 this plutonium. It is just completely impossible,
6 certainly in North America.

7 MR. REID: At the present time?

8 THE CHAIRMAN: At the present time.

9 MR. REID: I did a protest with
10 our boat at the Bruce Power Plant and there are no
11 nautical buoy markers restricting that area from any
12 boat coming into that area.

13 There are designated nautical
14 markings that can designate an area as a "no
15 trespassing" area. These I did not see there.

16 My concern also is, now that we are
17 planning on a chain of 13 or 14 on the Canadian side,
18 what is happening on the American side? I mean,
19 it is only 30 to 40 miles away. That has to be
20 taken into consideration, ecologically, the whole way.
21 You are concentrating that much energy in this
22 small area and we are all closing our eyes because
23 somebody has told us there is a line there so we
24 don't think, you know, 40 miles away that they are
25 doing a similar thing.



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DR. ROSEHART: Where is the
Greenpeace 7 Foundation located?

MR. REID: I don't know; my friend
goofed that up. We are trying to become the
Great Lakes Greenpeace and we are recognized as the
seventh boat that is working so far under Greenpeace.

Hopefully we will be having a
mailing address or a fixed address in Toronto. I
left there and I am quite happy to be living in a
nice, quiet, reclusive area on Manitoulin Island at
the present time. With the mail strike, I can do
it that way.

THE CHAIRMAN: Thank you, very much,
Mr. Reid. I am sure you have been most helpful.
Thank you.

The last of the three names I have
listed is George Spangler.

DR. SPANGLER: Mr. Chairman,
distinguished Commissioners, Ladies and Gentlemen.
I am speaking from an outline. If you would like
to have a written submission pursuant to this
delivery, I would be happy to provide it and send it
to you.

I am an Aquatic Ecologist; I hold
a Ph.D. from the University of Toronto in Zoology;



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my specialty is 'population dynamics of fishes'; and I have been doing 'population dynamics of Great Lakes' fishes', specifically Lake Huron fishes for the last six years.

There are several points that I would like to make this evening. The first of these is a philosophical one and it has to do with the question of tolerance limits. Tolerance limits, as we know them, in biological assay, are very often predicated on the basis of knowledge and assumptions which may change with time. We have a number of very important environmental examples of such tolerance limits. For example, let us look at the thermal loading of the biosphere.

Doctor Reid Bryson, of the University of Wisconsin, one of North America's leading climatologists, has stated that the entire planet may be headed for disaster if we have a global increase in temperature as much as half a degree celsius. This would perhaps result in such catastrophe as melting of the polar icecaps.

It has recently been discussed on the pages of "Science Magazine" that the heavy loading of chlorinated hydrocarbons in the upper atmosphere has the potential effect of increasing the greenhouse



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1 effect and accelerating temperatures in the biosphere.

2 This is an example of a thermal
3 loading which we cannot tolerate if, in fact, we
4 have to take into consideration the combined effects
5 of present generation of electrical energy and the
6 additional insidious action of halogenated
7 hydrocarbons in the upper atmosphere.

8 Another example of tolerance limits
9 which may change with time, comes directly from our
10 experience with mercury, DDT, and PCB's For many
11 years we felt that mercury was a relatively safe
12 item in the environment because everyone knows it
13 is essentially insoluble in water. What we did
14 not realize is that the methylation of mercury in
15 microorganisms can, in fact, place a potent
16 biological form of mercury directly into the cycle
17 processes that go on in sediments and then the
18 organisms in the aquatic environment.

19 We are today faced with a situation
20 where our understanding of mercury levels in the
21 environment suggests that we have far too much and
22 in some of the most important streams, some of our
23 native people, and we are very little closer to
24 understanding the mechanism by which one removes
25 mercury from this environment.



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We felt for years that the application of DDT and other pesticides on a wholesale basis for the preservation of crops was justifiable. We are only now beginning to find out that DDT, Aldrin, Chlordane and any of a host of other things are lethal and insidious. Some of these things act through carcinogenistic forces to provide a greater potency than anything taken in isolation.

We are very much concerned today about the PCB's and we are applying polychlorinated biphenyls not only in the Great Lakes but in the fishes in the Great Lakes as well. It is an interesting aside to note that PCB's are used as a coolant in hydro transformer substations and I think it would be worthwhile perhaps for the edification of the public here assembled to ask Hydro what their procedures are presently for doing away with the old PCB's that are drained out of their transformers when it comes time to replace the coolant.

This is certainly an environmental problem of significant importance to everyone in Ontario.

Biological magnification is one of things which has not been adequately taken into



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1 account. Why is it that we can measure a cubic
2 metre of water and find very detectable quantities
3 of things like mercury and PCB and DDT, and yet if
4 we happen to find a Northern Pike or common white Sucker
5 within that very cubic metre of water, we might
6 find a PCB content in excess of five parts per
7 million. What is biological magnification? It
8 is simply the process by which some of these very
9 important contaminants in the environment cascade
10 down through the organisms in the system.

11 We know, for example, that plutonium
12 239 can be concentrated with a magnification factor
13 of up to 10,000. There is a very interesting
14 paper on this relating to Lake Michigan, published
15 within the last couple of years.

16 We know also that other algae are
17 capable of concentrating alpha and beta emitters.
18 This has been common knowledge amongst ecologists
19 for over a decade.

20 Are we to find ourselves in a
21 situation where biological magnification runs amok
22 and displaces our present Great Lakes or other
23 bodies of water into hazardous cesspools where we
24 can neither fish, swim, nor enjoy the products of
25 production of these bodies of water.



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A second major concern is the idea of an acceptable limit. Very often we find that an acceptable limit, for example, might be established at half a part per million or something or other, in some quantity. Shortly thereafter medical authorities will say to us "Oh my, that is quite a lot too high." Recent medical advice suggests that the limit ought to be about one-tenth of that. If we can look at the use of X-rays within the medical community as an example of the case of the floating acceptable limit where every time the radiological technicians looked, they found that the previous acceptable limits were too high. How are we going to establish acceptable limits for anything, whether it be radionuclei's in the environment or whether it be thermal pollution.

We know, for example, that somewhere between the cold, crystal waters of Lake Superior and the dark, turbid waters of Lake Erie, is a continuant which cannot be judged at any point along the way to be either good or bad. Yet, we can compare the end points in a game of inequalities and we can say to ourselves, I think perhaps the quality of water in Lake Superior is much to be preferred over the quality of water in Lake Erie.



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1 The process can be so slow that it
2 is undetectable. The idea of setting an acceptable
3 limit is something akin to the general procedure of
4 allowing a licence to pollute.

5 While those are harsh terms it is
6 perhaps best to recognize that we do have a quality
7 of life, certainly along the north shore of Lake
8 Huron, which stands not to gain from the installation
9 of a large generating facility but to decrease in
10 some measure, perhaps undefinable, but nevertheless
11 very real way.

12 The third point that I would like
13 to make is that the littoral zone of the Great Lakes
14 is far more limited than it appears to be. By
15 "littoral zone" I mean that body of water which is
16 immediately adjacent to shorelines as opposed to the
17 very deep, cold reservoir away offshore.

18 The littoral zone of the north
19 channel on Lake Huron, for example, is something
20 on the order -- and these are very, very rough
21 calculations, something on the order of one to two
22 million cubic feet in volume. This is inside the
23 10 metre contour of each of the eastern and western
24 basins.

25 Now, the offshore waters comprise



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1 approximately 500 million cubic feet of water.
2 There is a difference then in quantity of approximately
3 10 to 1/5th cubic feet of water. In other words,
4 there is 100,000 less littoral water than there is
5 water in the main basin. Just how limited is this
6 resource? What depends on the littoral zone in
7 the Great Lakes? Almost every single species
8 of fish that we have in the upper Great Lakes depends
9 upon the littoral zone. The only group which has
10 been identified as not being micro-dependent
11 are the deep water chubs. The are the ciscos which
12 support the smoked fish, commercial fish industry.
13 Almost everything else is dependent, at some time
14 during its life history, upon the shoreline areas.

15 In speaking with Ontario Hydro's
16 environmental expert, Doctor Ray Effer, I was
17 interested to learn he lists the Great Lakes as a
18 heat sink resource. We are commonly trapped in a
19 game of classification where we try to decide what
20 is renewable and what is not in terms of resources.

21 The pine tree is thought to be a
22 renewable resource because you can cut it down and
23 plant another and perhaps in years hence you will
24 have another one to turn into comic books or
25 newsprint.



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1 We are talking now about a heat
2 sink concept for the Great Lakes. We don't know
3 whether it is renewable or not. Yet we are all set
4 to go out there and exploit it, and we don't even
5 know if it is renewable. It seems now would be
6 the time for a wholesale thinking of exactly what
7 our energy needs are and a wholesale recognition
8 of just exactly what the environmental costs are.
9 These are horrendous risks.

10 There is one very obvious disparity
11 in my mind, and I think it is worth illustrating.
12 We have a pricing structure for electrical energy
13 in Ontario which says that a kilowatthour to run an
14 iron lung costs the same for the consumer as a
15 kilowatthour to run an electric toothbrush. I
16 think that we must undertake all obvious efforts to
17 equalize this disparity, to equalize base load-peak
18 load disparities before we will undertake the
19 incredible risks associated with additional large
20 scale power generation.

21 Thank you for the opportunity of
22 commenting.

(2) 23 THE CHAIRMAN: Thank you, Doctor
24 Spangler, for a very erudite, and I say this in
25 real sincerity, presentation. I don't know how



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1 many people fully understood this in depth, but
2 it is very obvious that perhaps later when the main
3 Inquiries of the Commission come up and the
4 ecological questions that you have raised are under
5 examination, perhaps the Commission will be able
6 to call on you to facilitate the examination of
7 these very important questions.

8 I assume that you are a student of
9 Doctor Fred Fry?

10 DR. SPANGLER: That is right.

11 THE CHAIRMAN: I thought you were.
12 You know, you get patterns. It is interesting, too,
13 you mention Doctor Reid Bryson, with whom I have had
14 contact with through Doctor Kenneth Ayre, whom, I
15 am sure, you will also be aware of.

16 As I say, the questions you have
17 raised are obviously of very basic significance to
18 this Inquiry and I see Solange is putting up her
19 fingers so she obviously has a question.

20 MME. PLOURDE-GAGNON: (Translated
21 from French)

22 You talk about the mercury experience,
23 the lethal effects of mercury and it is reality that
24 has been proven. You also mention the effects of
25 DDT. On the one hand, we know that DDT contaminates



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1 the environment and on the other hand, this is a
2 very personal question concerning me when I go
3 camping, I know that people have a great deal of
4 trouble with mosquito bites and I don't know if it
5 is because DDT is no longer being used. I know
6 DDT is not used any longer and these mosquitoes
7 cause very great problems. I don't know if there
8 is any way to reduce these very ferocious bites?
9 I think this is a question to be thought of, that
10 we should consider quite soon, because if we want
11 to better the way of life of man first and then the
12 environment, this is an aspect that concerns me
13 and a great deal of people.

14 If we can find a solution to this
15 problem, I would be happy to implement it.

16 DR. SPANGLER: There are situations
17 in which we have judged the use of one or more of
18 the exceptionally persistent ^{/or} dangerous environmental
19 contaminants to be worth the risk and certainly the
20 control of mosquitoes in an area where encephalitis
21 outbreak is either under way or about to occur, this
22 apparently is one of the games that we are unwilling
23 to risk.

24 By the same token, we are in a
25 somewhat better position now than we were ten years



5.18 1 ago to judge whether or not we have to go to a
2 persistent or organic chlorine or whether we might
3 use something of less persistence or more acute
4 toxicity. That is something that might perhaps be
5 equally effective in control and have a shorter
6 lifetime in the environment.

7 So we are making technological
8 advances. We are not willing to simply give up,
9 I think, in cases where it is not immediately
10 apparent whether or not the cure will be worse than
11 the disease. So, I think that each of these issues
12 must be weighed on its own merits and I think the
13 most difficult of all is attaching the value, either
14 subjective or otherwise, to both the controlling
15 agent and the ill that we hope to control.

16 MME. PLOURDE-GAGNON: (Translated
17 from French)

18 Thank you very much. That is very
19 encouraging.

20 DR. ROSEHART: You brought up the
21 subject of PCB's used in transformers or as a
22 coolant in transformers. I can probably stand
23 corrected on this but I believe this material is now
24 being phased out as a coolant and spent PCB coolant
25 is collected in central locations around the Province;



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1 and I believe they have to transport it to the
2 United States as there is no disposal facility
3 available in Canada but they ship it across to the
4 United States and somehow it is disposed of there.
5 It is a legitimate concern.

6 DR. STEVENSON: Doctor Spangler, I
7 wonder if you have ever had occasion to observe the
8 diffusion pattern of the waste condenser water from
9 the power station on the Great Lakes to observe how
10 it affects the littoral zone?

11 DR. SPANGLER: The only literature
12 with which I am familiar, Doctor Stevenson, is
13 material which has appeared in publications of the
14 National Association of Great Lakes Research for
15 example, and in regional meetings with professional
16 societies.

17 Most of what I have seen, and I am
18 not well read on the subject, suggests that the
19 thermalplume is largely at the surface and largely
20 a very local effect. That is within a distance of
21 perhaps 2 kilometers radius from the site. It
22 moves on direction of wind or perhaps wind induced
23 action of the lake.

24 This is not to say that we can't
25 be concerned about failure to detect a profound



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1 change at some considerable distance from the plant.

2 The reason for my concern really
3 isn't that one can have a single generating station
4 along the Lake Huron shore and expect to see the
5 entire ecology of Lake Huron go asunder but that
6 given sufficient time and a continuing exponential
7 growth rate in energy production we will find
8 generating stations shoulder to shoulder. We will
9 find a 2-kilometer or perhaps 2-mile radius of
10 effect is just barely enough to be out of range of
11 the next station down the shore. If we continue
12 at this rate eventually we lose our entire littoral
13 zone.

14 Now, there is some concern for the
15 question of whether or not the water should be
16 discharged either at or near the surface for a
17 considerable distance out into the lake. In any
18 event, if one continues to look for effects which
19 we judge in advance to be undesirable, we may well
20 be looking for exactly the wrong thing as we were
21 in the situation with mercury. We were looking for
22 metallic mercury. Metal mercury was the problem.

23 I don't believe that we have
24 sufficient wit to ask all of the relevant questions
25 in advance of the problem arising, and this is



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1 basically the source of my concern.

2 The U.S. Fish and Wildlife Service
3 go one point further on the littoral zone. It
4 estimates that by 1990 the littoral waters of Lake
5 Michigan in the vicinity of Gary, Indiana and Chicago,
6 Illinois, heavily industrialized areas, will be
7 exchanged through heat exchanges at the rate of 4.4
8 per cent per day. And elsewhere in Lake Michigan,
9 in less heavily industrialized areas, the exchange
10 rate will be something in the order of 1 per cent
11 per day.

12 Now, normal fish and fish eggs don't
13 stand the thermal shock of going through heat
14 exchanges very well and 4 per cent per day or even
15 1 per cent per day over the entire year is surely
16 sufficient to have a profound environmental impact.

17 Even if you are looking at an
18 individual example, a single instance, we are unable
19 to find something that we would judge to be
20 environmentally undesirable.

21 DR. STEVENSON: This is far too
22 important a subject to make jokes about, but I can't
23 resist commenting on an article on this question
24 that was referring to the thermal effects of dotting
25 the Great Lakes' shorelines with power stations, and



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1 the title of the article I will never forget. It
2 was called "Palm Trees Around the Great Lakes".

3 THE CHAIRMAN: Thank you very much,
4 Doctor Spangler. You have made a very important
5 contribution and I hope you will let us have this
6 as a written submission and I hope we will be able
7 to be in touch with you in the future.

8 Thank you very much.

9 I have a signal that there is some
10 coffee, but we sort of move to that part of the
11 evening's activities, I just want to tell you what
12 I am going to do next. Is Mrs. Pat Myers here? I
13 know Mr. Myers is here. I am going to ask Mrs. Myers,
14 and maybe they can work this out during the coffee-
15 break, if she would let us hear from three or four
16 of the students from Manitoulin High School. Do
17 you think you could do that? I think this would
18 create a sort of precedent for a Royal Commission.
19 I think it is tremendously significant for this one
20 because, as I pointed out previously, these high
21 school students today are going to be the leaders
22 at the end of the period for which this Commission
23 is going to try to make recommendations.

24 So perhaps if we could, and I do
25 ask you because this is perhaps the most important



23 1 part of our activities to date, what is going to
2 come up after the coffee-break, so what I am saying
3 to you, could you please be back no later than a
4 quarter to ten. I will knock on this thing to
5 indicate the signal.

6 --- SHORT RECESS.

/7/eg 7 --- ON RESUMING.

8 THE CHAIRMAN: Mrs.Myers, is with the
9 Manitoulin Secondary School and most of you will know
10 that they organized in the school last Thursday, I
11 think you would probably call it a seminar and it
12 was a seminar for the discussion of this problem so
13 that the students could be briefed and so perhaps
14 have more fun in coming to this meeting tonight.

15 Mrs.Myers, I think it was your idea,
16 a group of three of you.

17 MRS.MYERS: Thank you, Dr. Porter. I
18 would just like to say that the students who came with
19 me today do so quite voluntarily and I think it speaks
20 very well for them. They and I, I might add, are
21 rather nervous never having spoken to such a
22 Commission or in front of such people, but I think you
23 will appreciate their concern about the Island and
24 the proposed nuclear generating station on LaCloche.

25 Some of them will simply be speaking
their own opinions and others will be reading letters



1 or ideas they have jotted down.

2 So, if you are prepared, they will
3 start ahead.

4 THE CHAIRMAN: Would you kindly
5 introduce them, Mrs. Myers, and perhaps sit up there
6 while I make their presentation.

7 MRS. MYERS: Yes. The first two to
8 begin are Ronnie Jackson and Jill Patterson.

9 JILL PATTERSON: I am sure everyone
10 is aware I was in no way prepared to speak tonight
11 and also I'm not fully aware of the technological
12 aspects of this type of project. I do know where my
13 sentiments lie.

14 I am a student at Manitoulin Secondary
15 School and have lived on the Island most of my 17
16 years and being opposed to the proposed station on
17 LaCloche Island I would like to explain my position.

18 There are obvious disadvantages to
19 this type of project which I imagine has been stated
20 before:

21 Social impact: thousands of people
22 suddenly coming to live on the Island whose population
23 has been relatively stable for many years; hospitals
24 and schools would be over-crowded; existing housing
25 and sewage treatment would be insufficient; commodities
26 will rise in price; taxes will increase; and land



1 values will increase rapidly.

2 These, however, are only half of my
3 concerns. I have always been a naturalist and I'm
4 quite attached sentimentally to the Island. I
5 have always accepted the fact as have most teenagers
6 here that I would have to move off the Island to
7 complete my education and perhaps find steady
8 employment. However I always expected the Island to
9 remain the same for me to come back to for holidays
10 and retirement. Now all I have to look forward to
11 if the Island becomes rapidly industrialized is a
12 rat race equal to or even to exceed that of a city.

13 Manitoulin today is a chosen community
14 for many people, tourists and retired among them and
15 I refuse to see what is wrong with that. If people
16 have desires for more money, let them choose to find
17 it elsewhere.

18 A hydro plant in close proximity to
19 the Island would start a chain reaction of events that
20 would surely ruin our scenery, make quick work of our
21 natural resources, pollute our fresh water and totally
22 urbanize our beautiful Manitoulin.

23 I believe that in 25 years it would
24 be better to look back and say "You know, we really
25 should have let that hydro plant go through", than to
have to deal then with the results of a non-thinking



1 and quick decision to use more energy. I also like
2 to remember that it is not today's generation who
3 builds the plant that will have to deal with it, but
4 us, the young, the next generation.

5 THE CHAIRMAN: Thank you very much
6 Jill.

7 MR. RONNIE JACKSON: I would just like
8 to say that this plant would destroy not only our
9 freedom, and I mean by this all kinds of people who
10 come and spend in our Island to a point where we
11 would regret it. Also that our tourism would be
12 destroyed because people come to the Island to get
13 away from things like a nuclear power plant. Some
14 people say that this plant would bring tourists from
15 all around but I don't think they would want to see a
16 beautiful little island with fresh water and fresh air
17 and small little towns, where people get along fine,
18 and plenty of farms, turned into a large smog-eaten
19 city.

20 I think that we have enough electricity
21 on our island and it would be a shame to turn all
22 that everybody who has worked on this island, into
23 buildings and dust.

24 My last remark is that God built that
25 world and if He wanted to destroy it, the beautiful
land, He would and He doesn't need hydro's help to do
it.



1 Thank you.

2 MRS. MYERS: Kevin, Tom and Ed. Could
3 you three come up now, please.

4 TOM KENNEDY: I have not got too much
5 to say but whenever you go into a big city or anything
6 you see a lot of lights and signs and everything that
7 I don't really think are necessary and I was wondering
8 how much power that used up that we don't really need
9 to use.

10 Another thing is on the Island when I
11 come back in 10 or 15 years, if I leave, I don't want
12 to tell my kids where I used to hunt or show them
13 where I used to fish. I want to tell them where I
14 did fish and show them where I did fish.

15 That is all I have got to say.

16 ED. NOONAN: Well, sir, my name is Ed
17 Noonan. I have lived on the Island, not all of my
18 life but I have lived there for 12 years. I have
19 become rather attached to the Island, I go down to a
20 city like Toronto or even here in Sudbury I find myself
21 lost, not able to cope with the people. Maybe it is
22 just my way of living but it seems to me that I like
23 to be able to walk out my back door, grab the shotgun
24 and take a walk down the back road into the bush and
25 shoot a couple of partridges or something whereas
with this power plant, if it goes in, and if it goes in



1 at LaCloche Island there are going to be people, many
2 people. You are going to have to build an addition
3 to the school; you are going to have to build new
4 housing and that means sewers, et cetera, everything
5 to cope with the people. When this construction is
6 over and all the people it takes to build this place,
7 when they leave, who is going to be stuck paying for
8 the sewers, the homes, the new school et cetera. It
9 is going to be the taxpayers who are left on that
10 Island and those are the ones that are going to suffer.

11 Now you are going to find too, right
12 now we have all our kids playing junior hockey and
13 amateur hockey. They are all playing in the arena
14 and they practise at a decent time in the morning.
15 You got some kids waking up at 8 o'clock Saturday
16 morning to go and play hockey. If this comes in,
17 people are going to grow so fast that you are going
18 to have your kid, 4 years old or 5 years old, getting
19 up at 5 o'clock in the morning or 4 o'clock in the
20 morning to play hockey, just to go out and play hockey,
21 whereas before I remember I used to go down and
22 practise, play hockey at 11 o'clock in the morning. I
23 thought that was early and I thought that was rough,
24 you had to walk all the way up to the rink, but I
25 don't know, this 5 o'clock in the morning, like in



1 Toronto the ice is used all the way around all the
2 time.

3 I just don't like the thought of that
4 many people coming to the Island disturbing the
5 privileges we now have which are being limited now
6 by the "no hunting" signs as is.

7 I don't know, I just don't want to
8 see too many people on the Island. I like it the way
9 it is. That is all I have to say.

10 MR. KEVIN DUNLOP: My name is Kevin
11 Dunlop. I'm going to talk about wildlife on the
12 Island. I think if the people come for this power
13 plant I think they are going to run most of our
14 wildlife off the Island. Right now it is populated
15 with a lot of animals and I don't like to see these
16 animals being run off because of their beauty and
17 whatever of hunters, whatever they think, but I say
18 if these do come we are going to have a problem with
19 wildlife plus right now we are called the largest
20 most fresh water Island in the world and I feel that
21 if this comes in we won't be called the most fresh
22 water Island in the world.

23 Also I am afraid of the radiation
24 problems that are not for sure - well, they are not
25 for sure, but if a radiation problem broke out it
could kill all the Island plus most parts of Espanola



1 and Sudbury.

2 If you want to know my general idea,
3 I don't like the plant to our Island.

4 Thank you.

5 MME.PLOURDE-GAGNON: (Translated from
French)

6 What I want to say is that you are
7 making me feel like I want to go and live there. I
8 feel like I want to drop everything and just go off
9 and live on that Island.

10 MRS.MYERS: Could I call on Sally and
11 Eric, please.

12 ERIC ROBINS: My name is Eric Robins
13 and I want to talk about the social impact of the
14 power plant when it comes to LaCloche Island.

15 The social impact of the nuclear
16 power generating station or the fossil fuel station,
17 it will bring people to the Island, quite a few people.
18 I believe it will make the economy rise for 5 or 6
19 years that it is in the building stage and after this
20 there will be a depression of the local economy in
21 and around the Island, not necessarily just Manitoulin
22 Island; it will be through Espanola. Even if it is
23 built up around Black River it will raise the economy
24 there and there will be a depression afterwards.

25 Also I would like to talk about the



1 power, how much power is being produced in Ontario and
2 how much power is being planned; how many power
3 plants. There are being planned at least 14 power
4 stations until the year 2000 which will provide
5 enough electricity (my figures probably are not right
6 by any means), for 183 billion homes in Ontario which
7 are not needed at all. There aren't that many homes
8 in the whole world, never mind Ontario.

9 There is also a statement that I have
10 in this little pamphlet. It is "Nuclear Power -
11 recent quotations from authoritative sources". It is
12 a United States person. It is from Dr. Donald
13 Gisman former AEC Scientist.

14 "Dispersed as fine particles,
15 one pound of plutonium 239 represents
16 the potential for some 9 billion
17 human lung cancer doses. Given the
18 half life of 24,000 years plutonium
19 presents a major carcinogenic hazard
20 for the next thousand human
21 generations."

22 If one of these, one pound of
23 plutonium 239 ever got out into the atmosphere, 9
24 billion cases of cancer could possibly happen. That
25 is more than the population of the world and it is
very frightening to me and to most of the people on



1 the Island, I would presume.

2 Thank you.

3 SALLY GAIKEZHEYONGAI: My name is
4 Sally Gaikezheyongai and I am from Wikwemikong and I
5 thought I would come and speak for the Indians. Most
6 of the people that I know from Wikwemikong I don't
7 think they even know what is going on. As far as I
8 know, no one has gone on the Reserve and told the
9 Indian people what is going on.

10 The Porter Commission is probably
11 nothing more than a title to them and I would like
12 someone to go over there and talk to them and possibly
13 someone in our language explain what is going on. I
14 am sure everyone knows there is something going on
15 and something we should be concerned about but we don't
16 have that much of an idea. I have listened to
17 everybody speaking and I still have not got too much,
18 only I know that this land is in a lot of danger and
19 it would ruin the Indians' way of life. You know
20 what happened in Wounded Knee. Those Indians
21 revolted because of what the area was becoming like
22 and I'm sure when other Indians from those kind of
23 organizations learn what is going to happen on the
24 Island and what it is going to do to the Indian people
25 they on behalf of the Indians will do what they think
is right and act for Wikwemikong whether we really



1 want to or not and they will say, no, we want to
2 preserve the Indian way of life and Manitoulin wants
3 to preserve its way of life; we don't want this power
4 plant on our Island. We like the way we are living;
5 we are content with it; we are satisfied. Let's keep
6 it that way because we don't want our Island ruined
7 and I don't think even if Wikwemikong doesn't think
8 too much of it now, there are other Indians all over
9 Canada who won't want our way of life disturbed.

10 That is all I have to say.

11 THE CHAIRMAN: Thank you, Sally. You
12 are very articulate and very persuasive.

13 MRS. MYERS: I would just like to add
14 a note to Sally's speech and suggest that perhaps
15 with that many people coming into the Island as
16 workers that almost none of them would be native
17 people and that would seriously upset the already
18 existing balance of natives and whites on the Island
19 and sometimes that presents problems for the native
20 people to maintain their way of life as it is. I
21 don't think that danger should be increased or
22 encouraged.

23 Can I call on Delroy and Kerry.

24 DELROY : First of all I
25 would like to thank the Porter Commission for giving
me the opportunity to speak here this evening. I, as



1 a young resident of Manitoulin, have the future of
2 our young area on our mind this evening. This
3 proposed station will greatly affect the future of
4 our region in many ways. People's lifestyles can
5 change considerably if this is located here. The
6 influx of people would put a great strain on the
7 beautiful clear environment we now live in.

8 Some of my concerns about the future
9 nuclear station, if it was located in my area, would
10 be: one, will it and if so, how much could it change
11 the lifestyle of the people who live in our area?
12 Will it be harmful to the environment on which some
13 residents such as tourist camp operators and many
14 others depend on to provide their daily bread.

15 Will it be costly, social service-wise,
16 by causing a lack of classroom space, hospital
17 proficiency, et cetera?

18 a
19 Four, will it be/continuing over-hanging
20 health hazard re radiation? Will it enlarge the
21 present small towns into metropolitan jungles which we
22 now have to put up with in the southern part of the
23 province. How much extra will it cost the average
24 taxpayers to have this project located in their
25 immediate area?

I personally do not favour this station
being located on the LaCloche Island which are filled



1 with beautiful preserved wilderness, wonderful scenery,
2 again preserved and in general one of Ontario's only
3 true unspoiled areas easily accessible to the people
4 of this province.

5 If we are doomed to have this located
6 on the north shore why should it not immediately be
7 given to an area that openly wants it and is willing
8 to take the accompanying chances instead of posting it
9 on an area that has substantial opposition to such a
10 structure and its side effects.

11 I'm all for the granting of this
12 project to Blind River who really and truly has a need
13 for the big boom that it would bring to their
14 community.

15 Thank you.

16 KERRY : I'm just going to
17 read two letters, one from Robert Fax who is not
18 here tonight, and my own.

19 This letter, I hope, will state my
20 opinion and many other people's opinions and ideas in
21 concern with the proposed nuclear power station for
22 the north channel. I am a new resident of
23 Manitoulin Island as of August, 1975. I have lived
24 here with my family since 7 years ago and from then
25 until now I have liked the Island the way it was and
is. The Island is known all over the world as a



1 beautiful place, untouched by our modern way of life,
2 a place where you can actually feel yourself live. A
3 nuclear power station would change the Island's way
4 of life drastically. If the power station is built,
5 several things will change. Among them, population,
6 public facilities and our environment.

7 Population in the first stages of
8 construction, several thousand workers with their
9 families will move in. The effects of this many
10 people moving in all at once will be very immense,
11 even if this many people came in over one year.
12 Hospitals, housing, businesses, roads, schools, et
13 cetera will need to be enlarged or built. The
14 environment of a nuclear power station is said to be
15 cleaner than fossil fuel plant. That is obvious. It
16 is also obvious that fossil fuel plants don't give
17 off radiation and leave wastes that are lethal for
18 thousands of years, 25,000 approximately.

19 This is not to mention reactors which,
20 in a way can produce a radioactive cloud that could
21 extend 100 miles down wind and kill everything in two
22 weeks flat. These risks, as far as I'm concerned,
23 are not needed even though they are once in a million
24 chance. If you think that your childrens' children
25 will be around, the chance gets closer and closer.



1 The choice is up to us, whether we
2 want Manitoulin to be enjoyed the way it is now or to
3 be enjoyed the way it will be.

4 This is Robert Fox's, "Chances of
5 Radiation". This is a major question that people of
6 Manitoulin should be asking themselves concerning
7 their proposed nuclear generation station on
8 LaCloche Island.

9 How will our future way of life and
10 that of our children and our environment be affected
11 by this sudden impact of large industry on a rural
12 island. This question leads to many other important
13 ones, what are the chances and effects of radiation;
14 how would the wildlife be affected; how would the
15 fish and other water life be affected; could we make
16 a smooth transition to an industrial way of life
17 without losing the benefit of a rural one?

18 Many people come to the Island both to
19 visit and to live, to enjoy the beauty, the relaxed
20 pace of life, the unchanged environment, mainly
21 pollution-free. Other serious questions concern
22 whether or not we need that additional power. I
23 think not. We need to conserve energy not increase
24 our use of it.

25 I want the politicians to make the
decision only after these extremely important areas



1 of concern have been fully researched. If you enjoy
2 Manitoulin then the choice is also yours. Let the
3 Porter Commission hear your views.

4 Thank you.

5 MRS. MYERS: I think we have two more
6 students to hear from and I think they feel that they
7 are somewhat in the minority since they are speaking
8 on behalf of the power station being located here. I
9 think they have some real suggestions and positive
10 ones. Roland and Brian, would you come up please.

11 ROLAND : I think that I am part
12 of a minority group here but I feel that a nuclear
13 plant on LaCloche Island would be advantageous because
14 it would provide jobs for the younger folk who would
15 normally move away. It will also bring more money
16 into the community, which it needs, and we also need
17 the energy.

18 BRIAN : They say that the
19 schools, hospitals, facilities et cetera would be
20 overcrowded. The facilities are not very good to begin
21 with anyways.

22 Nuclear power plants have air and
23 water purifiers attached to them and are very clean.
24 The possibility of leakage is small and the nuclear
25 reactors are attached to a vacuum building. This is
our concern.



1 THE CHAIRMAN: Congratulations to
2 all of these young people. I think this is a very
3 impressive performance they have put up, and thank
4 you very much, Pat Myers for your part in it.

5 MRS. MYERS: Thank you. I would just
6 like to say I am very proud of the students who came
7 tonight.

8 (Further general discussion)

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1 MRS. EILEEN MARSHALL: My name is
2 Eileen Marshall and I am speaking for Friends of
3 Rainbow, at Espanola. It is a group that formed
4 originally to oppose the LaCloche site. Since then
5 we are more or less opposing all three sites on the
6 north channel because we see the same problems in all
7 three areas.

8 We have also joined the Canadian
9 Coalitaton for Nuclear Responsibility and are
10 working with them.

11 I am just going to read parts of this
12 brief because I think lots of it is repetitious, we
13 have heard the same thing but some is of particular
14 significance to our group (I have also got laryngitis).

15 Lewis Mumford who wrote "Pentagon of
16 Power" said, and I think this is of crucial importance
17 in this study "Too much energy is as fatal to human
18 life as too little; hence the regulation on energy
19 input, not is unlimited expansion, is in fact one
20 of the main laws of life."

21 Ontario Hydro is proposing to build
22 seventeen new Hydro stations in Ontario in the next two
23 decades, filling a projected increased energy "need".
24 The members of Friends of Rainbow, a concerned citizen's
25 group seriously question this "need". We feel it is
time that the citizens of this country stop to



1 consider their philosophy of growth. Growth does not
2 necessarily equal progress; in fact, in the case of
3 energy, it could mean the exact opposite. We question
4 the 7% increase in Ontario Hydro's energy needs
5 projection, when Ontario's growth factor is practically
6 zero. Hydro says the increase reflects industrial
7 growth; we say that as long as industry receives power
8 at reduced rates this trend will continue. And yet
9 Hydro claims to be losing money because of decreased
10 consumption, necessitating a 27% increase in rates.
11 If consumption is down, why do they need seventeen
12 new energy stations? Perhaps to honour their export
13 agreement? It seems to us that there are far too
14 many contradictions in Hydro's projections. We demand
15 to know just what the real need is.

16 We are suspicious of Hydro's almost
17 complete commitment to nuclear power for the future.
18 They tell us that it is the cheapest power they can
19 give us, when in fact it is a very inefficient and
20 expensive method of producing energy. We want to
21 know why the government does not earmark more money
22 for research and development of non-consuming and
23 non-polluting alternative sources of energy such as
24 solar and wind. We believe that it is because oil
25 companies have such a large interest in uranium. As
Ralph Nadar aptly put it: "If oil companies owned



8.3

1 the sun, we'd have solar energy." Hydro has just
2 committed 9½ million dollars to uranium exploration
3 with Shell and Amok. Such commitment to an
4 unperfected technology as nuclear power is
5 irresponsible. Why doesn't Ontario Hydro use this
6 money to research alternate sources of safe energy?
7 They say it is too expensive!

8 We believe that a publicly owned
9 company should be responsible and accountable to the
10 public. Hydro has a history of holding back
11 unfavourable facts from the public. In their
12 publications, public meetings, and the media, Hydro
13 does not tell the whole story; they obscure facts,
14 they omit facts, they even deny facts. The public
15 are not technologists, nor are we stupid; they can
16 only judge from what they are told by the experts and
17 I think they need more information from other experts
18 than just the Hydro experts.

19 We have gone on with hazards of
20 nuclear power and I suspect that has been quite
21 aptly covered in their last session so I will omit
22 that. Maybe the radioactive emissions, I will read.

23 We are concerned with the cumulative
24 effect of routine emissions of radioactive material.
25 Ontario Hydro says they are well below the limits set



1 by the AECB, but surely these limits are artificial.
2 No one really knows the tolerance of living things to
3 radioactivity, furthermore genetic damage may not
4 show up for generations. Radioactivity is known to
5 cause miscarriage, birth defects, cancer and leukemia
6 in growing children. The emissions may be
7 "insignificantly small" if measured at any one time
8 at any one place, but Hydro fails to mention
9 biological magnification, the chain of nature:
10 Plankton becomes radioactive, fish eat plankton,
11 people eat fish; hay becomes radioactive, cattle eat
12 hay, people eat beef. Moreover, they do not point
13 out the cumulative effect of radiation over the years,
14 not that of seventeen more plants around the Great Lakes.
15 It must also be taken into consideration that not only
16 the Ontario nuclear plants will affect the
17 ecological balance of the Great Lakes but those of the
18 existing and proposed American nuclear power plants.
19 Dr. Booth of the Department of National Health and
20 Welfare says: "It is now generally agreed that there
21 is no "threshold" -- no level so low that the
22 possibility of producing an adverse health effect
23 completely disappears."

24 We are concerned also with accidents.
25 Hydro companies have already had numerous accidents



8.5 1 with nuclear energy. We don't find out too much about
2 them through the media, I don't know why. A recent
3 explosion in a heavy water plant in Nova Scotia caused
4 \$500,000 damage and it took up about this much room
5 (indicating) in the newspaper, if you happen to see
6 it. Leaks have been found more than once at Pickering.
7 Twice in 1970 the Douglas Point Nuclear Generating
8 Stations spilled radioactive wastes in Lake Huron.
9 In one instance a year's legal limit of radioactive
10 liquids escaped in one day from the plant, as we have
11 already heard. It is only a matter of time until a
12 major accident releases unsafe quantities of
13 radioactive material into the environment. Walter
14 Jordan, who formerly Assistant Director at the Oak
15 Ridge National Lab expressed his fears in this way:
16 "In my opinion there are no measures we can take that
17 will eliminate the possibility of a major nuclear
18 accident."

19 Now, the North Channel site; the
20 friends of Rainbow seriously question for a 12,000
21 MW generating station anywhere on the North Shore.
22 This is six times that of Pickering and four times that
23 of Bruce A, not to mention plans for four heavy water
24 plants. It is impossible that the North needs this
25 much energy. We want to know how much is for use in



1 Southern Ontario and how much is going to be exported
2 to the U.S.A. We also feel that energy centres
3 should be built near the load centres, not only for
4 economic reasons, but to eliminate miles and miles of
5 unsightly transmission corridors.

6 In the Globe and Mail this morning,
7 Mr. MacDonald said, an area of great concern to him
8 was the extent of Hydro's surplus and generating
9 capacity. He noted that generating reserves had
10 climbed from about 28% a year ago to 38% or 39% at
11 present. Describing the reserves as a fantastic
12 excess the Committee Chairman said MPP's should
13 examine whether Hydro's next generating station on
14 stream, a one billion dollar thermal station at
15 Wesleyville might be cancelled. Hydro officials
16 said cancellation fees of about 50 million dollars
17 would be involved - cancellation fees of \$50 million
18 dollars.

19 Environmental impact on the North
20 Shore. Surely the people of Ontario want to reserve
21 at least a few unspoiled areas for themselves. It is
22 not just a matter of people on the island wanted to
23 keep the island the way it is for the people that live
24 there. There are so few areas left in Ontario for
25 people to go. Surely it is our responsibility to



1 reserve a few areas for people to come. The North
2 Shore is a beautiful area. It is unique geologically
3 and historically. The Ontario Government put out a
4 book called "Geology and Scenery". I think it was
5 and in there they extolled the beauties and uniqueness
6 and so on of this area. This area is said to be
7 second only to the island area of Greece for yachting.
8 Open stretches of water, spectacular scenery, and
9 excellent harbours make this area very attractive to
10 the boater. That is a quote and that is from the
11 North Georgian Bay Recreational Reserve Report in
12 1971. In that year, the Ontario Government passed
13 the North Georgian Bay Recreational Reserve legislation
14 to preserve this area from Parry Sound to Blind
15 River for recreational use and mixtures "compatible
16 to the environment". Yet Ontario Hydro doesn't
17 consider this "a major constraint" in their choice
18 of sites.

19 Now, if the government is going to
20 pass legislation to protect an area surely they
21 should stand by it when plans for some project like
22 this does come up.

23 DR. STEVENSON: You quoted Ontario
24 Hydro as saying this was not a major constraint.

25 MRS. MARSHALL: Yes, that is in the
Task Force Hydro Report - Site Status Report. They



8.8

1 did not consider this a major constraint.

2
3 Also in a letter I received from, I
4 think it was William Davis, I can't remember, - wait
5 a minute - it was from Ontario Hydro and they said
6 in their letter that the government had indicated
7 to them that if they did choose the LaCloche Island
8 area for siting the Ontario Government had indicated
9 that the legislation could be changed to accomodate
10 it. Now, that is pretty far out, I think. We have
11 got to preserve something, and if the government
12 can't do it for us, I don't know who can.

13 Socio-economic impact. All three
14 possible sites are situated near small towns with
15 no considerable growth, not just the island, not
16 just Espanola, not just Blind River, not just Thessalon.
17 All of them are the same types of towns. We are
18 most concerned with the sudden influx of construction
19 workers and Hydro personnel which could be disastrous
20 to any of these towns, and we have heard all this
21 before. Schools become overcrowded, more teachers
22 are needed, dentists and doctor services become almost
23 impossible to obtain. Heaven knows we have enough
24 trouble now trying to get an appointment. Electricians,
25 plumbers and other skilled workers go to Hydro for more
money. Local business can't compete with Hydro's



8.9 1 inflated wage scale. They lose their employees to
2 Hydro.

3 Makeshift housing springs up and
4 prices rise; roads cost more to maintain; water and
5 sewer facilities are overloaded, to mention only a
6 few problems.

7 Who pays for all this? The local
8 residents pay for this growth through increased
9 taxes and then when the construction crews are gone
10 and any local people who held jobs at Hydro lose
11 their jobs, the town is left in a slump. Artificially
12 fast growth for an isolated small town always
13 spells disaster. One has only to look at Douglas
14 Point to see what we are talking about. We do not
15 want our town ruined in this way.

16 Friends of Rainbow have several
17 recommendations they would like to make to the
18 Commission, with respect.

19 1. We urge that Hydro's "projected
20 need" be investigated and that actual need be determined.

21 2. We urge that the public be given
22 an incentive to conserve energy. By providing more and
23 more energy, Hydro is merely creating more need.
24 Perhaps monetary incentives (like those of Bell
25 Canada) to reduce peak load would be effective.



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3. We feel that Hydro's rate structure must be made more equitable. Industry uses over half the energy produced and they pay less for it; they should pay increased rates the more they use.

4. Hydro must be made accountable to the public. They must be required to tell the whole story and answer questions honestly and supply information when required.

5. We urge that the government support more research into alternate sources of energy.

6. We feel that the government should provide funds for private citizens groups to research and intervene in Hydro's planning. You have already spoken of that.

7. We urge each member of the Commission to search within himself or herself the morality of Hydro's commitment to nuclear power and the bequeathing of this horrendous legacy to future generations. We ask that a nuclear legacy be a major consideration when the Commission is deliberating on providing "direction for the life style of the citizenenes of Ontario (and the world) for the final decades of this century and beyond".

That is from the Royal Commission's Blue Pamphlet. Thank you.

(GENERAL DISCUSSION)



1 MS. C. A. COTE: (Brief presented but
2 not read.)

3 I submit to you my friends that what
4 we are engaged in here today is an exercise in
5 futility. In a province where the Minister of Health
6 says he is sick of getting letters from people who
7 smoke and don't exercise, about Mercury poisoning at
8 Grassy Narrows and White Dog Indian Reserves; where
9 the Minister of Energy says "giving the public its say
10 in the planning of major new Hydro generating stations
11 and power lines is causing worrisome delays; where
12 we are told one day that Hydro wants an increase in
13 power rates because of a) high oil prices and b) a
14 lower-than expected power demand (backed up by the fact
15 that the new Lennox generating station will stand idle
16 most of the time). And in the same newspaper Mr.
17 Timbrell says "I am worried that there is a widespread
18 lack of appreciation for the very real supply problems
19 we may face by failing to conclude public debate in
20 time to construct needed facilities." WE CANNOT WIN.
21 We are fighting against people who feel a "brown out"
22 is more serious than the loss of a life. We are not
23 going to win this battle. Obviously (or we wouldn't
24 be here today) we are survivors of a group who believe
25 in participatory democracy. We might as well banish
that belief once and for all....this is not partici-



1 patory democracy, this is allowing the public to
2 participate until Mr. Timbrell and his kind decide
3 they have had enough, and they will then proceed to
4 conclude public debate in time to construct needed
5 facilities; whenever and wherever they want to build
6 a Nuclear Generating Station.

7 I suggest we now shift our emphasis to
8 lobbying to have Ontario Hydro and the Energy Board
9 of Canada and the Canadian Nuclear Association put
10 one dollar for every one hundred dollars spent on
11 Nuclear Energy to research into Cancer, Silicosis,
12 and Uranium poisoning. Perhaps through this increased
13 research we can save the men who mine the uranium to
14 feed these plants and save the people who develop
15 cancer from living too close to the perimeter of these
16 plants, spills, explosions, accidents, whatever.

17 It can be said that I have no proof
18 that people will develop cancer from nuclear power.
19 But then twenty years ago it couldn't be proven that
20 the Mercury pouring from the paper plant at Dryden
21 would cause Minomoto Disease either, but it does.

22 I surely don't have to prove that mining
23 uranium kills people, there are sixty graves in
24 Elliot Lake that will do that for me.

25 ---THEREUPON THE MEETING ADJOURNED.

